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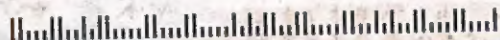
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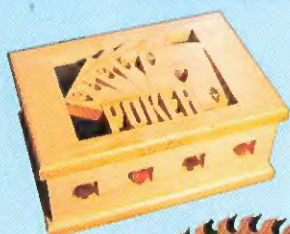
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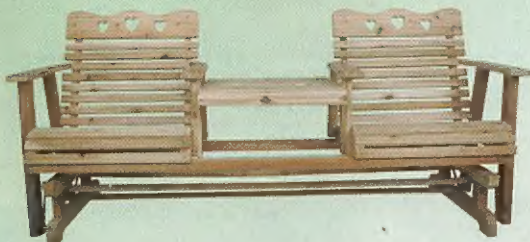
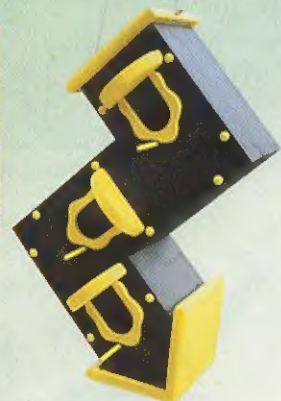


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Watchful Eyes



Reverent Denomination



Pug Puppies



Three Wildcat Portraits



Pen and
Pencil
Boxes

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Engine 86



Helm's Wheel Intarsia



Ready for Flight



Curly Sue

CREATIVE WOODWORKS & CRAFTS® September 2005, No.110
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Printed in U.S.A. Cover design by Kelly Albertson

THE FULL SIZE PATTERNS FOR THE PROJECTS SHOWN ON THIS PAGE ARE LOCATED
IN PULL OUT PATTERN SECTION NO. 1 FOUND IN THIS ISSUE.

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Screaming Eagle



Whiskers



Fretwork Box



Pocket Watches (no pattern for this project)



Turkey
Beard
Holder
Intarsia



The Tree Swing



Chirping Chickadees
Wall Pocket



Red-Tail
Hawk



Mare and Colt

ON THE COVER: This issue's cover features Rob Letvinchuck's Helm's Wheel Intarsia. Rob has become a regular contributor to *Creative Woodworks & Crafts*® and we are grateful to have him with us.

THE FULL SIZE PATTERNS FOR THE PROJECTS SHOWN ON THIS PAGE ARE LOCATED IN PULL OUT PATTERN SECTION NO. 2 FOUND IN THIS ISSUE.



Watchful Eyes

pattern by Jacob Fowler, cut and finished by Wayne Fowler



SUPPLIES

Wood: hardwood in mid- to light-brown color (such as butternut, cherry, or oak)—one rectangular tree slice 1/2"- to 3/4"-thick x 15" x 8" (or 15" x 8" rectangle with straight sides)

Tools: scroll saw with No. 2R and/or No. 5R blades; fixed disc or belt sander with fine or extra fine (120/220) disc or belt; access to photocopier

Temporary-bond spray adhesive (such as 3M 777 adhesive)

Clear packing tape

1/4 sheet of 220-grit sandpaper

Finish oil of choice

Introduction

Most of the designs we do are single animal pieces, so, for a change Jacob decided last year to try a forest scene with a mother doe and her two fawns. It was a bit large, and my arms were a bit short(!), so I put the design aside for a few months while I did my Christmas craft shows. Over the Christmas break, after I had managed to lose a little weight and made the pattern a little smaller, I was able to cut a trial piece. Jacob then modified the design to make it a bit shorter. The resulting design, nicknamed "Watchful Eyes" because of the mother deer's alert stance, cuts well and looks great.

The finished family was cut from a tree slice of 3/4"-thick butternut with the bark still on. It has a great knot just beside the mother, which gives it some good lines and some very white sapwood. The piece was cut on an Excalibur EX30 saw, using mainly No. 5R blades for the mother and frame and No. 2R blades for the two fawns, given their fine details.

INSTRUCTIONS

Photocopy the pattern and use spray adhesive to attach it to the wood. I recommend using clear packing tape on top of the pattern to reduce the burn from the tight turns you will have to make while cutting the pattern. If the slippery packing tape makes handling the piece difficult, try putting the packing tape on the wood first, then glue the pattern to the tape. For cutting, I recommend using a combination of No. 2 and No. 5 reverse tooth blades to reduce chipping on the bottom of the piece.

After you have drilled the guide holes and cut out the fret pieces, either peel the pattern off or use a solvent such as paint thinner to remove the paper pattern, and let the piece dry. Sand the front and back of the piece, and straighten the outside lines of the rectangle using a disc or belt sander. (When I am in a hurry, I just peel off the packing tape and sand off the pattern.) Using a piece of 220-grit sandpaper is a good way to remove any remaining burrs and to lightly round the edges to give the piece a more finished look. Clean the piece using your favorite tool of choice, such as a clean paintbrush. Finish with a thin oil to seal the inner edges. I use mainly walnut oil, but I also like tung oil.

The finished cutting could be displayed on a wall, but I recommend backing it with a thin piece of plywood cut to the shape of the piece.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres., Markham, Ontario, Canada L3R 3J6, or email him at: fantasiesisaw@rogers.com



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SCREAMING EAGLE

by Roy King, Scott Kochendorfer, and Bob Valle of White Tail Designs, Ltd.

SUPPLIES

Wood: maple or other light colored wood of choice—one piece 1/4" x 6-1/2" x 7-1/2" (for eagle); oak, walnut, or wood of choice—one piece 1/2" to 3/4" x 12-1/2" x 9" (for frame); Baltic birch—one piece 1/8" x 12-1/2" x 9" (for back board)
Tools: scroll saw with No. 2R blades; drill with 1/16" bit; router with decorative router bit and roundover bit (optional)
Temporary-bond spray adhesive
Clear packing tape
Sandpaper, medium and fine grits
Polyurethane spray in satin or choice of finish
Spray paint in flat black or choice of color
Hanger

INSTRUCTIONS

Photocopy your patterns, saving the originals for later use, and cut them out. Using the spray adhesive, apply a thin coat to the back of the patterns and let them tack up until they feel sticky, like masking tape. Apply the eagle pattern to the light colored wood. Place the piece of wood for the frame on the piece of Baltic birch for the back board, attach the two pieces using clear packing tape, and apply the pattern to the top. (The frame and back board will be cut at the same time to ensure that both pieces are the same size.) Place clear packing tape over all patterns, which makes cutting easier and lubricates the blade, keeping it cooler.

Drill all entry holes on the eagle piece, then cut out all holes and along all internal veining lines as you come to them. Finish by cutting along the outside pattern lines.

Cutting through both thicknesses, cut along the outer line of the frame pattern. Separate the two pieces of wood and set the back board aside. Drill an entry hole within the frame opening area and cut out along the inner line. If desired, use a router with a decorative bit to cut along the outside of the frame and use a roundover bit along the inner edge of the frame. Remove the patterns and sand all pieces.

For a protective finish, we suggest using a spray polyurethane for both the eagle and the frame. Spray in short bursts, making sure to keep the can moving to avoid unsightly runs in your work. When dry, sand lightly, then apply another coat and let dry.

Using spray paint in the color of your choice, paint both sides and the edges of the back board and let dry. Glue a 1/4"-thick spacer to the back of the eagle, staying clear of any cut out areas. This will lift the project off the back board, creating a pleasing look. Glue the back board to the back of the frame. Center the eagle on the back board and glue in place. Let dry. Lay the assembled project on a flat surface and place weight on the assembly to prevent any pieces from shifting. When completely dry, attach a hanger to the back. Be sure to always work in a well-ventilated area and follow all safety instructions!



Drill entry holes.



Cut out all holes and along internal veining lines.

For questions concerning this project, contact: White Tail Designs, Ltd., 17713 S. 66th Ct., Tinley Park, IL 60477; email: scrolled1@comcast.net



from the editor's desk

Welcome to the 110th edition of *Creative Woodworks & Crafts*®! I believe this to be one of our best issues to date, with a truly wide selection of projects for you to choose from. We have two new contributors in this issue, Sue Mey and Scott Roberts. Sue hails from South Africa and brings a lot of talent and passion to her work. There's something hauntingly real about her Three Wildcat Portraits; it seems she's captured the essence of these magnificent creatures within those flat pieces of wood, bringing them to life and making the imagination soar. Scott Roberts does a fine job with his Reverent Denomination, showing us how the power of creativity can transform the humble Lincoln Penny into an eye-catching project. Scott is also a good woodturner, and has contributed significantly to our sister publication, *Woodturning Design*™.

On the other side of the coin (pardon the pun), I want to acknowledge two other design teams who have been so consistently good they usually wind up with two projects per issue—Wayne and Jacob Fowler, and Shelli and Kerry Robinson. Wes and Alice Demarest and I met Wayne Fowler at a scroll saw show in Pennsylvania a couple of years ago and we were blown away by his wonderful use of select pieces of various hardwoods. His son, Jacob, does the designing, and Wayne does the cutting. But Wayne is not "just" a cutter, he's an artist with wood as his medium. Take a close look at Ready For Flight on page 11 of this issue. Even if dragons are not your thing, you've got to appreciate Wayne's wood selection, and how the eastern cottonwood he selected for the pattern piece elevates the entire project to a high artistic level. Similarly, the Fowlers' Watchful Eyes project is distinguished not only by a fine pattern, but also by how the 3/4"-thick butternut slab, with bark attached, causes the project to come to life and hold your attention.

Shelli Robinson began designing for us with our June '04 issue and has been a regular ever since. Without doubt, Shelli has a special talent for creating scroll saw patterns with lots of heart. Through Shelli's art we know her to be a great lover of horses, puppies, children, bunnies, carousel horses, and all those sweet subjects that warm the soul and touch us directly in that place that loves the purity and innocence of life. Her loyal husband Kerry does a fine job of cutting (and often framing) Shelli's projects, and for this we are also very grateful.

And then there's intarsia. Rob Letvinchuck's Helm's Wheel is simply top-notch, and Darin Liles has "done it again" with his Turkey Beard Holder. We city slickers knew nothing about turkey beards, so that in itself was a minor revelation! I'm amazed by how many of you have become adept at intarsia, much of it totally original, and that's why we've begun beefing up the amount of intarsia in our issues. Bob Hlavacek's Intarsia Talk column remains a regular feature to support the ground swell of interest in this beautiful artform.

Enjoy this issue and until the next one, health and happiness to everyone.

Sincerely,

Robert A. Becker

Robert A. Becker

A Few Highlights From Our Next Issue (the 2005 Holiday Edition)

Christmas Ornaments
by Patty Beach



Buck Saw
by John Polhemus



Christmas Angel
by Wayne and Jacob Fowler



Snowman Bank
by Diana Thompson



Lion and Lamb Intarsia
by Rob Letvinchuck

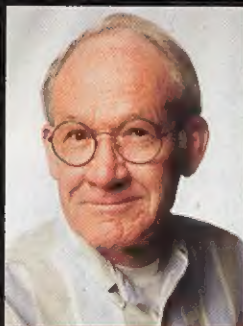


Snowflake Tambour Clock
by Dan and Ray Wilckens

Don't miss these upcoming issues of
Creative Woodworks & Crafts®!

Issue No. 111 (Holiday 2005) - on sale September 1st, 2005
Issue No. 112 - on sale October 4th, 2005
Issue No. 113 - on sale November 8th, 2005

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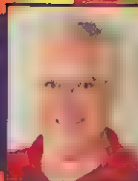
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READY FOR FLIGHT

pattern by Jacob Fowler, cut and finished by Wayne Fowler



SUPPLIES

Wood, hardwood in mid-brown or red color with strong lines or grain (such as brown oak, willow, butternut, or cherry)—one piece $3/4"$ x $12"$ x $8-3/4"$ (for dragon); complementary or same type of hardwood—one piece $3/4"$ x $1"$ thick x $2"$ x $9"$ (for optional base)

Tools: scroll saw with No. 2R and/or No. 5R blades; fixed disc or belt sander with fine or extra fine (120/220) disc or belt; access to photocopier

Temporary bond spray adhesive (such as 3M 777 adhesive)

Clear packing tape

1/4 sheet of 220-grit sandpaper

Finish oil of choice (e.g., tung, walnut, Danish, etc.)

wood are caused by the crotch at the top of the log. The base is a piece of brown oak with a lot of character. It is finished in several coats of walnut oil. I also cut a larger, sister version mounted on a piece of grey elm burl that has attracted a lot of attention in my office at work.

INSTRUCTIONS

Photocopy the pattern and use spray adhesive to attach it to the wood. I recommend using clear packing tape on top of the pattern to reduce the burn from the tight turns you will have to make while cutting the pattern. For cutting, I recommend using a No. 5 or a No. 2 reverse tooth blade to reduce chipping on the bottom of the piece.

After you have drilled the guide holes and cut out the fret pieces, either peel the pattern off or use a solvent, such as paint thinner, to remove the paper pattern, and let the piece dry. Sand the front and back of the piece on a disc or belt sander. This is your chance to ensure that the bottom surface is straight and flat by sanding out any bumps. I find that using a 1/4-sheet of 220-grit sandpaper is a good way to remove any remaining burrs and to

lightly round the edges to give it a more finished look. Clean the dragon using your favorite tool of choice, such as a clean paintbrush. Finish with a thin oil to seal the inner edges. I like to use either walnut or tung oil.

If you plan to display the finished piece on a shelf, you may choose to mount it on a rectangular base measuring about $9"$ x $2"$. Use two dowels or screws through the right end and center of the bottom of the dragon. I use a roundover router bit to give bases a more finished look. You could also round the ends of the base before routing for another option.

Send questions concerning this project to: Wayne Fowler, 33 Longmeadow Cres., Markham, Ontario, Canada L3R 3J6, or email him at: fantasiesisaw@rogers.com

Introduction

One of the reasons for the name of our craft business, "Fantasies I Saw," is that we make and sell lots of fantasy designs. We have found that dragons, whether big or small, sell consistently, regardless of whether we are at a science fiction and fantasy show or just a local craft sale. Jacob has made a number of simple dragons over the years, but never a big, complex one. Last month he finished a great dragon perched on a rock, looking for excitement or her next meal! We will show that one at our upcoming Christmas craft shows for all those dragon collectors out there.

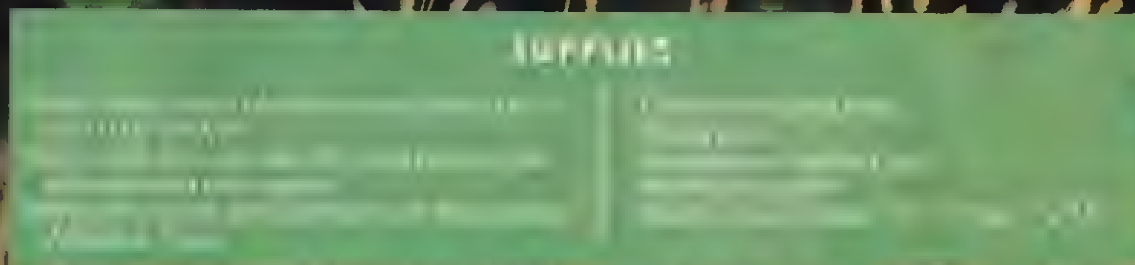
This dragon was cut from one of my last pieces of an eastern cottonwood stump found by Edgar Werner, in the town dump in Durham, Ontario. The great lines in the



WHISKERS



designed by Shelli Robinson and gun by Kerry Robinson of SKWOODWORK



Introduction

We all have our childhood heroes, and mine were, and still are, the authors and illustrators of classic horse stories, such as Walter Farley, Marguerite Henry, Anna Sewell, and Sam Savitt. I have accumulated a rather large library of their works and books as I anxiously await the day when I can read these cherished stories to my own daughter. I remember checking out the *Black Stallion* so many times from our library that the borrower card for the book was almost completely filled with my name!

Mr. Savitt's works inspired my realistic approach to drawing horses, and therein everything else I draw. His artistry flared my imagination to run with the characters in the books he illustrated. I will never outgrow my childhood dreams of being Alec, riding like the wind on the back of the mighty Black Stallion, with no saddle or bridle.

With this pattern, I wanted to capture the gentle and curious look of a gorgeous stallion as he gracefully arches his neck over the paddock fence. I named him "Whiskers," suggesting that the most insignificant part of this magnificent animal is his most endearing feature! His ears are pricked forward at attention, as if to say, "Do you have something for me?" Whether I'm bringing him a carrot, an apple, or simply a loving pat and kiss for his satin muzzle, he is happy to see me. Of all the positions I have seen horses assume such as rearing, bucking, running, or prancing, this is by far my favorite. There is nothing as heartwarming as my horse warmly nickering to me as I approach.

Whiskers is just one of my many designs that feature horses, and my unending admiration for these noble creatures is matched by my admiration for the storytellers and illustrators of my youth who were able to bring their tales of horses to life for me.

INSTRUCTIONS

Using your method of choice, apply your pattern to the clean surface of your wood. We use Removable Adhesive Paper for ALL of our scrolling projects. Although we have listed only one piece of 1/8"-thick wood in the supplies list, we usually stack cut about six boards of 1/8"-thick Baltic birch plywood for stability and enhanced productivity. We apply double-sided tape to the four corners of the wood,

staying clear of the pattern. These particular boards were cut to fit the inside of ready-made frames.

No matter which pattern application method you use, it is a good idea to apply 2"- or 3"-wide clear packaging tape over the entire top of your pattern. This simple and inexpensive step will lengthen the life of your blades because it helps to keep them cooler by lubricating them while you cut. Do not wrap tape around to the bottom of your wood as this could make your board(s) uneven or take your blade out of square. Make sure your blade is square, and check this frequently while scrolling.

Pre-drill all your holes and make starter holes at the end of all the single lines, such as the lines within the fence. Cut out the smaller areas first. Kerry cut this pattern following the usual "center-working-out" method. I recommend cutting out the biggest areas last. Of course, let your own experience guide your hands and direct your blades, and have some fun with this pattern!

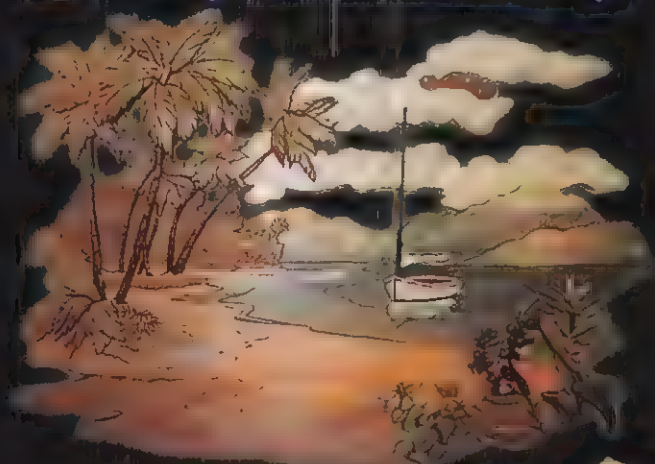
When you are finished, gently pry the boards apart. For those of you who have discovered the ease of working with Removable Adhesive Paper, just peel off the pattern! Otherwise, remove your pattern using your preferred method and clean the wood surface. Sand the back of the board.

For a backer, you can use the cardboard that comes with the frame spray painted black (as shown in this example), a piece of birch board spray painted black, or choose your own color combination of materials and frames. Glue your finished piece to the backer and frame as desired.

We are SKWoodWorks, which stands for "Shelli Kerry Woodworks." Visit our website at www.skwoodworks.com. Check us out every now and again for updates from us from around the barn. I draw in standard 8-1/2" x 11" letter-size patterns for easy copying, cutting, mounting and framing. We sell the adhesive paper, finished pieces, and patterns off of our website. For more information, visit us on the web, or send a SASE to: SKWoodWorks, P.O. Box 583, Pleasant View, TN 37146. Pattern requests and suggestions are always welcome!



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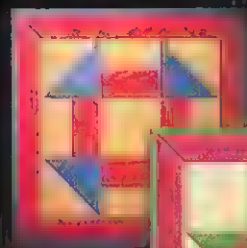
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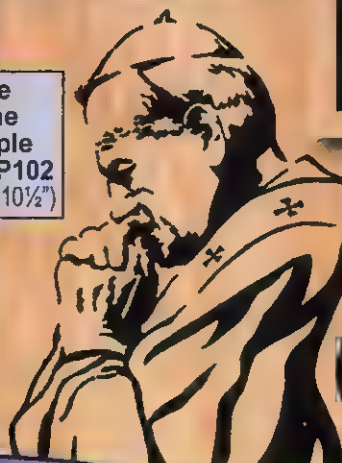


JFK...#SCP102
(8½"x10½")

Soaring Eagle
#JZ328 (11"x14")



Pope of the
People
#SCP102
(7½"x10½")

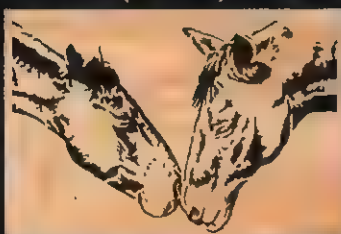


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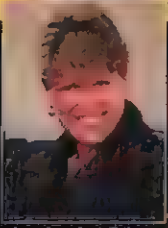
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Three Wild

by Sue Mey



cat Portraits

SUPPLIES

Wood: Baltic birch plywood or wood of choice—one piece 1/4" x 8" x 10" (for each cat); MDF (medium density fiberboard)—one piece 3/4" x 8" x 10" (for each cat)

Tools: scroll saw with No. 2 or No. 3 reverse tooth blade; drill press with 1/8"- and 1/16"-Dia. bits; disc sander; palm sander; sanding block; clamps

Temporary-bond spray adhesive

Wood glue

Packaging tape

Thin double-sided tape

Carton paper

Sandpaper, assorted grits

Clear spray varnish

Deep penetrating furniture wax liquid or Danish oil

Artist's brush

Matte black spray paint

Saw tooth hanger

Instructions on page 18



Introduction

I live in beautiful South Africa where the climate is warm, the landscape is varied and verdant in summer, and there is an abundance of wildlife. Nature inspires me and, being a devoted cat lover, I would like to share with you three of the many wildcats I have captured on wood.

Cheetahs are often thought of as African and pumas are thought of as American, yet the two cats have a lot in common. Because the cheetah hunted in the open planes and the puma hunted in thick forest and tall grass, the two cats were not in competition and were able to live together in the New World. Both make trilling sounds, chirps like birdcalls and whistling noises. They also have pupils that stay round and do not form slits like the pupils of wild cats or house cats. They rely on their long-distance vision, using high places as lookouts, for their information. Both types of cats have extremely long, heavy tails to give them balance and both are extremely fast. The cheetah is, of course, the fastest land animal and can reach speeds in excess of 60 mph.

The leopard, which is classified as one of South Africa's "Big Five," is most easily recognized by its rosette-patterned coat and extremely long, dark tail. It has powerful limb and neck muscles, enabling it to carry a fully-grown male antelope or even young giraffe, weighing up to three times its own body weight, high into treetops. This is to keep its trophy away from scavenging packs of hyenas and opportunistic lions. The leopard is a versatile hunter and is generally nocturnal in its pursuit of prey.

Patterns for all three of these big cats are provided with this project.

INSTRUCTIONS

Using the palm sander, sand the wood. This not only reduces the amount of hand sanding to be done later but also the risk of breaking off fragile pieces when sanding after cutting. Photocopy the pattern at 100% and attach to the wood, using temporary-bond spray adhesive or method of choice. (**Note:** To prevent tear-out underneath when cutting a portrait, attach some carton paper, such as an empty breakfast cereal box, to the bottom of the wood with thin double-sided tape. Cover the carton with packaging tape.)

Drill the blade entry holes using the 1/8"-Dia. bit. Carefully drill the holes in the small areas using the 1/16"-Dia. bit. Use sandpaper or a scraper blade held at a slight angle to remove any burrs created by drilling the holes. Be sure to follow the grain of the wood.

Thread either the No. 2 or No. 3 blade through the blade entry holes and cut all the black areas on the pattern. Slow down the speed of your saw when cutting fragile parts like the eyes and whiskers, and use a zero clearance insert to reduce the risk of breaking these parts. (**Note:** You can use a piece of your cereal box carton to make a zero clearance insert. Simply drill a small blade entry hole in it and tape it to your saw table with masking tape.)

Remove the pattern and, using 150-grit sandpaper, sand the back of the piece by hand or use a sanding block to remove all burrs. Sand the front of the piece starting with 320-grit sandpaper and working up to 500-grit sandpaper until you have a smooth finish. Be careful not to catch and break any fragile pieces. I prefer to use a three-finger-sized piece of sandpaper without a sanding block because it

gives me a better sense of the amount of pressure required.

Square the four edges of both the portrait and the backing piece using the disc sander. The two pieces can be done separately and dry-fitted to ensure that the two work pieces line up nicely. Alternatively, attach the portrait to the backing with thin double-sided tape or hot glue on the four corners before straight sanding the edges. Detach the two pieces immediately afterwards, as the tape becomes stickier and more difficult to remove if you leave it on for a day or two. Remove all sanding dust. (I block-mount my portraits on painted MDF backings. If you prefer, back the piece with black matting board and mount in an 8" x 10" ready-made frame.)

Use a medium-size artist's brush to apply deep penetrating furniture wax liquid to the portrait front and edges. The brush makes it easy to reach all the nooks and crannies of the piece cuts. (**Note:** In cold conditions, I pour some wax liquid into an old ceramic mug and heat it in the microwave oven for 15 seconds to allow the wax to liquefy. This way, the wax penetrates the wood without leaving a waxy layer.) Let the portrait dry for a day or two. To speed the process, place the portrait in the sun to dry, or use warm heat from a hairdryer. As an alternative to the furniture wax liquid, you can apply Danish oil, following the manufacturer's directions. Carefully wipe surfaces with a dry lint-free cloth.

Spray the front, back, and edges of the MDF backing with three thin coats of spray paint, allowing it to dry completely between coats. (**Note:** The edges absorb the paint, resulting in a "rough" appearance. To ensure a smooth-edged finish, spray as above and when dry, sand the edges of the MDF backing with 150-grit sandpaper. Remove sanding dust with a clean paintbrush, and then spray on another two to three coats of paint, allowing it to dry between coats.)

Working quickly, apply wood glue to the back of the portrait. Use only small beads of glue near the edges and on the fragile pieces. If you apply too much glue, it will seep out once clamped. Place the portrait on top of the MDF backing, "square up" the two pieces on a flat surface, and apply clamps. If glue seepage occurs, wait until the glue starts to thicken before using a toothpick to remove excess glue from a small area at a time. Once the glue has dried, remove the clamps.

Apply several thin coats of clear spray varnish, allowing the project to dry thoroughly between coats. Attach the saw tooth hanger, and you're ready to present the portrait to your favorite wildcat enthusiast. Or, add the portrait to the collection on your wall. If you have run out of wall space like I have, try the following display option. Make a pelmet for a window in your house or workshop by attaching a selection of portraits to the curtain rail; secure the portraits with bendable wire attached to the saw tooth hangers.

I live in Pretoria, South Africa and have been scrolling for about 10 years. My hobbies include photography, assorted crafts, and watercolor painting. As a motorcycle enthusiast, I enjoy touring with my BMW and acting as a marshal at the annual motorcycle economy run. I scroll logos, trophies, and desk stands for corporate companies, and I combine scrolling with painting and decoupage, using the techniques to create colorful clocks and children's bedroom accessories. I can be contacted at 27 12 460 1013 (telephone), or E-mail: suem@storage.co.za. To see more of my work, visit www.geocities.com/meidenhart

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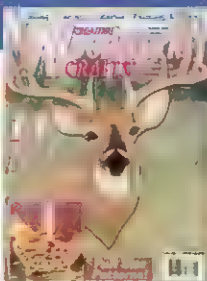
JUNE 1997
Tiger and Eagle Mini Clocks, Raccoon Intarsia, Fretwork Eagle, Carving a Frame, Christopher Mantel Clock, and more!



OCTOBER 1999
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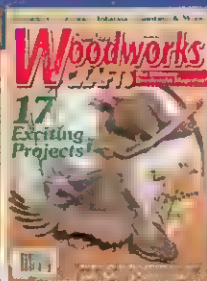
NOVEMBER 1999
Two Lighthouse Mini Clocks, Dragon, Butterfly Band Saw Box, Mini Grandmother Clock, and more!



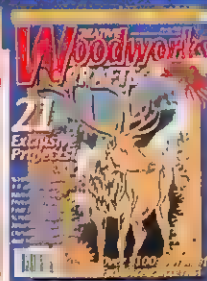
OCTOBER 2000
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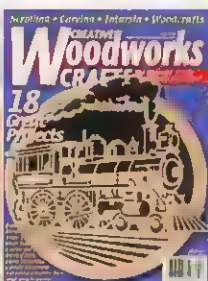
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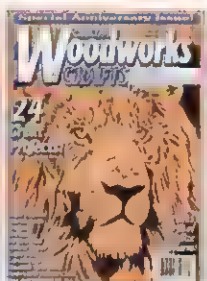
JANUARY 2002
Eagle Intarsia, Fretwork Frame, U.S. Navy Plaque, Basketball Clock, Cougar Plaque, Scrolling Antler, Three 3-D Ornaments, and more!



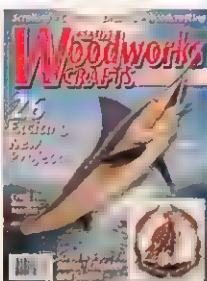
MARCH 2002
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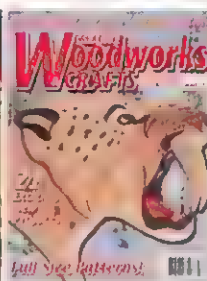
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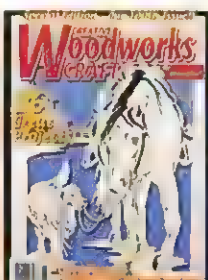
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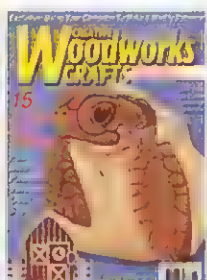
MARCH 2004
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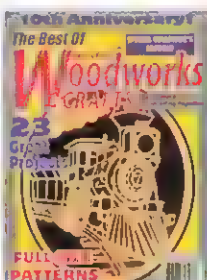
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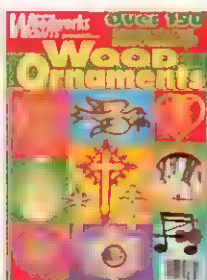
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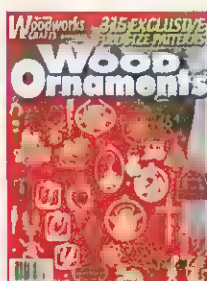
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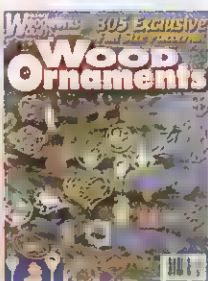
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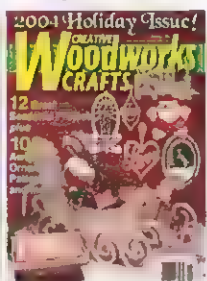
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Wes' Workshop

by Wes Demarest

COPYRIGHTS AND RELEASES

Lately I have received several questions regarding copyrights. As I'm not a lawyer, I can't give legal advice. In fact, copyrights, trade dress, trademarks, patents, and releases are such complex areas of the law, all pertaining to intellectual property rights, that major corporations retain specialists to handle such matters. Although I'm not a legal professional, I'll share with you what I know.

I'm sure many of you are familiar with the latest legal battles over downloading music from the Internet and not paying for it, and that is only one small facet of this gem. Just as musicians write original music, pattern designers create patterns from their original ideas. That pattern, song, lyric, photograph, writing, or other creative endeavor becomes that person's original intellectual property and is, from that moment on, protected from being used by ANYONE else without their express permission. The word "express" is a specific legal word that really puts an obligation on both parties. The rights to these properties are controlled by their creators in all aspects of any use, which includes the numbers and types of use, how long the rights last, and the cost of acquiring the rights from the creator. So where does that leave a budding artist? Watch out for your influences and inspirations!

Public Domain

Many things cannot be copyrighted and are in what is called the "public domain." Numbers, letters of the alphabet, wildlife species, and words found in the dictionary are just a few. But when you put together any combination of them, that combination is now your copyright, unless someone else beat you to it or it is derived from another similar pattern. Confused yet? Wait, it gets worse.

Assume that you would like to turn someone's carving pattern into a scroll saw pattern. The creator of the original pattern probably never considered that type of use, and being the creative type that you are, you work on it and end up with a beautiful design. You begin selling the objects you cut from that pattern, and they sell like hotcakes in the arctic. Then, one day, you receive a registered letter from a law firm, and it is a cease and desist order, AND the originator of the design is seeking compensation for the violation of his copyright. Well, after your mouth goes dry, your stomach will start flopping around, and your knees will get weak. My advice is that you better seek legal counsel who specializes in the intellectual property rights field (not your family attorney).

Yes, dear reader, pattern modification is also covered. "Trade dress," mentioned earlier, is another less known trap into which you can easily fall. An example would be if someone makes a bunch of different items and paints them all in a very similar and distinctive manner. That person becomes known for his product line because, although the patterns may be of anything, the finishing technique is so recognizable. (One trade dress case in the courts involved a Holstein cow pattern, and the person copying it LOST!) Again, many of these issues require legal advice for the designer.

Let's look at another type of infringement. You see a photograph of an eagle in a magazine, newspaper, etc., and make a scroll saw pattern from it. Well, you are heading down a stony path. You make items from that pattern and use them as gifts, and it is only a

little rocky. Then they become so popular that you sell a few of them to some local folks, and the path now has bigger rocks. You step up to selling at a wider range of craft shows, and the rocks continue to get bigger. As your success grows, so does your distribution. One day, the original photographer sees your project, perhaps on someone's wall, in a store, or at a craft show, he recognizes it as one of his photographs and can prove it. Well, now you could get hit with a boulder.

We have heard some folks say, "All I have to do is make eight changes and it is my original." Not so! Whether you add or remove eight or 800 holes, it is NOT yours. You have to make changes sufficient enough that the original pattern is, at best, not even recognizable. Anything less and you are on thin ice. For example, say you see an original pattern of a cardinal bird that sells well. You want the pattern to be your own, so you make it a bluebird. Well, it had better not be a cardinal with his crest removed and colored differently because that may not work.

While you may think the consequences for simply selling a knock-off that you made seem excessive, just consider how angry (and rightly so) the originator of the pattern would be if you sold the pattern without his permission and under your name. Remember that the artists rely on their designs to distinguish themselves from the competition. They are juried into exclusive galleries, shows, and museums because of their uniqueness. If someone comes along and cuts into their market by selling knock-offs of their designs, it effectively reduces their income through loss of sales, reduction of prices, and/or loss of exclusivity.

Releases

Did you know that if you use a recognizable feature of private property in a design you need a release from the property owner? And that applies to some public properties as well, such as famous architectural structures like cathedrals, castles, and the like. At the very least, you may need a permit to make images of anything within the boundaries of a federal, state, county, or municipal property or park to be legal. Those permits can get rather expensive, but fortunately, most are in the public domain. If you use a person as a model for your pattern, or a likeness of a person, including celebrities (living or dead), you also need a release to keep yourself out of trouble.

Have you ever visited a museum, art gallery, or even certain tourist spots, and noticed signs warning that photography or other recording methods are forbidden? Well, it may not be an issue of Homeland Security. It may mean that the rights to the feature and its contents are already owned or controlled by someone else. And guess what? Most of them have set fees for your intended use and possibly royalties as well.

So, are you new designers out there looking over your shoulder and worrying about what is in the mail? If so, don't. The first step to avoiding these pitfalls is knowing they exist, and now you do. A chat with the appropriate lawyer will further clarify these matters and put your mind at ease. By the way, did I mention coloring books, and cartoon characters, and...?!

For questions concerning this article, send a SASE to: Wes Demarest, 66 Snover Rd., Sussex, NJ 07461; email: wes@wood-worksandcrafts.com



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	12"x16"	8.70	11.60
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ENGINE 86

by Jeff Zaffino



Introduction

Across the street from my house is a railroad track that is used by the Tennessee Valley Railroad Museum. They run an antique steam engine up and down the tracks a couple of times per month as a special tour of our scenic neck of the woods. I have always been fascinated with the people and machinery of days gone by, and the things they accomplished with such limited technology and resources have always amazed me. I could sit and watch that old train pass by for hours on end, but I must say my favorite thing about "Old Smokey," my nickname for the train, is the way my son Gianni's eyes light up when he hears the whistle in the distance. The way he runs to the window dropping whatever he is doing to watch the train, the wonder in his eyes, and the smile on his face, make my heart smile the way only a father's can. So I decided to design and cut a piece especially for him. Engine 86 is the result.

Soon after I started designing this pattern, something in

me made me bend the rules a bit. You see, when you design patterns for other people to cut, there are certain "rules" that you have to follow. For example, all of your connections have to maintain a certain thickness, all of your cutouts must be at least a certain width, etc. I have a penchant for pushing those rules right up to the very edge. I love a challenge, and the thought of cutting something that could explode into "designer firewood" with any stroke of the saw blade fills me with excitement, so with this pattern I thought I would push just a bit further than I usually do. The result is a piece that captures an incredible amount of detail and can be quite tricky to cut. My son's face upon seeing the finished piece was reward enough for me and made all the extra effort well worth it. My sense of satisfaction with this piece is way up there with some of the most difficult ones I ever cut.

Don't let this pattern intimidate you. Granted, it is highly detailed and there are a few places where the scrolling will make you hold your breath, but with some basic



SUPPLIES

Wood: Baltic birch plywood—one piece 1/8" to 1/4" x 14" x 11"

Tools: scroll saw with Flying Dutchman 2/0 spiral blades; drill press with No. 68 bit; palm sander or sanding block; spring clamps; air compressor; bernzomatic plumber's torch (optional)

Temporary-bond spray adhesive

Blue or purple painter's tape

220-grit sandpaper

Clear coat finish

Mineral spirits

Spray bottle

Black felt or backer of choice

planning and advice, you can cut this. That being said, however, don't think this piece is going to cut out like a simple puzzle. It will take an investment of both time and patience, and it will force you to use your best scrolling techniques. The completed cutting will be a piece that will make any scroller proud! The pattern itself has a little more than 700 cuts and took approximately 15 hours for me to complete. Confidence is the most important thing a scroller needs in order to attempt a detailed pattern such as this. Believe you can do it and you can.

I make my living with my saw, selling framed wall art, so a lot of the things I do are designed to achieve acceptable quality at maximum speed. If you have a tried and true method that works for you, by all means stick with it. The tips I share in this article are ones that work for me.

I prefer using spiral blades on patterns that are this detailed, but straight blades can be used too. I prefer Baltic birch for my cuttings, but any good quality ply will work well for this pattern. Use at least two pieces of 1/4"-thick ply, but if you are going to use 1/8"-thick Baltic birch for this cutting, stack a minimum of three pieces, because many of the areas of this pattern can use that extra support. The extra thickness will also help take some of the aggressiveness out of the spiral blades, making them easier to control.

Now that we have all that out of the way, let's begin our trip... ALL ABOARD!

INSTRUCTIONS

After ripping the wood down to size, I prefer to sand it before cutting. Once cut, a piece like this is VERY fragile, and you will not be able to sand it aggressively. As previously mentioned, using a stack of a few sheets will dramatically improve your odds of making it all the way to completion of this project. Stacking the wood tightly will also dramatically reduce the fuzzies that a spiral will inevitably leave behind. After stacking your wood with the ends flush and all the front sides facing up, temporarily secure one side with a few large spring clamps. I like to use three clamps for a cutting of this size, with one on each corner and one in the middle. Place the clamps far enough into the wood so you can run tape along the edges without having to remove the clamps. Blue painter's tape is easy to see on the wood and releases fairly easily. However, if

you pre-finish your wood, you will have an incredibly difficult time removing this kind of tape; try using purple painter's tape instead. After you run the tape along the edge, pull it snugly around to the top of the wood and, while keeping pressure on it, fold it over to the back. Once you have secured the first side, remove the clamps and continue around the wood. If you want to check the stack to be sure it is tight, finish all four sides and squeeze the stack right on the edge between your fingers. If wrinkles appear in the tape, then the stack is still loose. I know it sounds like a lot of extra work, but I assure you the time you save in removing those fuzzies will make it well worth the effort. Unfortunately, there is no technique I know of that will minimize them on the back of the bottom sheet.

Let's adhere the pattern and get down to the nitty gritty of cutting this piece. Apply a HEAVY coat of spray adhesive. (We will deal with removal later.) This cutting has lots of very thin areas and long floating pieces. If you don't use enough glue, they will lift, and you will be left trying to guess where to end your cut.

Take a good look at the pattern before heading to the drill press, taking note of the long cuts in the bottom as well as the way cutting the roof of the shed will effect the overall strength of the wood. Try to plan your cutting in advance. I suggest starting with the smokestack on the front of the train and cutting all of the train first, then moving to the tracks at the bottom, finishing with the shed. This piece will lose A LOT of strength as you cut, so keep that in mind and drill accordingly. Another consideration before you drill is that several of the connections in this piece are VERY thin and the cuts are very close together. You have to be sure your drill bit is perpendicular to the wood, and be extremely precise when you drill. I cut this with a 2/0 Flying Dutchman spiral and used a No. 68 bit to drill my holes. Bits that small, while wonderful for this kind of detail, will often cause the wood to "splinter" on the bottom, making blade changes all but impossible. To eliminate this problem, run the bit down in each hole a second time to cut the back clean.

Remember that this pattern, like any other, is simply a guide, not a rule book. Feel free to make any changes you want. You may decide to thicken some of the connections or to even totally ignore some of the cuts. Do whatever you feel is possible with your talent and experience. The condition and quality of your saw could also effect the cutting; a saw with a lot of "wobble" in the blade may cause you some difficulties.

Blade tension preferences are probably as varied as approaches to cutting a pattern. I personally like a setting of about 4-1/2 on my DeWalt. A setting that high will cause the blade to react with a very slight amount of movement of the wood. There are a few areas of the train, most notably the wheels, where you might want to think about trying a different cutting technique, such as changing direction. To do this, start cuts at the place where you decided to drill. Cut until you reach a point that will weaken the long piece that hangs back into the waste area. Once there, stop cutting around the outside and cut around the hanger, ensuring it doesn't break off. Sometimes that means cutting all the way across the waste area to reach a hanger, and then going back and resuming the outside of the cut. This technique has helped me to save many cuttings from the firewood pile, and I hope it will help you as well.

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If you are new to spirals, try not to turn the wood around the blade. Because spirals don't have an area you can push against to pivot your wood, they will cut in whatever direction you push. Instead, use the blade like a pencil to trace the line, using the entire cutting surface a spiral offers. I make as many cuts pulling the wood towards me as I do pushing it into the blade. Some people say that spirals are impossible to control and you shouldn't use them; however, there are a bunch of scrollers out there who use them, including me. I will let my work speak for itself as to whether or not a spiral can be controlled. Like anything else, they take getting used to, but now that I have tried them, I won't ever go back!

Take your time and let the blade do the cutting. As with any other scrolling project, start somewhere in the center and work out into solid wood. If you start to get a bit nervous about the way the wood "bends" (and it will) toward the end of cutting, try running some clear tape from the top of the piece to the bottom in a few areas, crossing over the area where you have already cut the strength out of the wood. This will allow you to see the pattern, while adding some stability.

After completing the cutting, I recommend using an air compressor to blow the dust out before you take the stack apart. This helps prevent any of those long pieces from breaking off. When you are ready, take a deep breath and unpack the stack by peeling the tape from the back of the stack back up to the pattern side. After carefully separating the pieces, blow the dust out again, only this time from both the front and back. CAUTION: Do not blow this piece without placing something solid behind it for support. Also, be sure to turn your pressure down to about 40 PSI.

There are still a few stops left on our journey through this cutting, but we are getting closer to the end of the line!

You now have a couple of completed cuttings that would be absolutely wonderful if not for those darn fuzzies! Here is the easiest and fastest way I have found for getting rid of them. Select a piece of scrap wood that you don't mind getting damaged. Make sure it is big enough to cover the entire cutting. I use a 1 x 12 scrap piece of yellow pine, but whatever you have that is big enough should be just fine. Stand the scrap piece up on your bench (I use my drill index behind it to keep it from falling over), and then place the cutting with the back facing you against the scrap wood. Here's the part that might shock you a bit. Grab a propane torch! I use a bernzomatic plumber's torch, but you could also use a pen torch. Turn the flame way down and QUICKLY wave it back and forth across the back of the cutting.

There are a few safety concerns we'll address here before going into too much detail. First and foremost, be careful. A propane torch burns much hotter than a standard lighter flame and will start a fire in a hurry. If you have used any solvents on your wood at all up to this point, don't try this method. The solvents are all extremely flammable and could result in disaster. As far as technique goes, be sure the scrap wood extends beyond the edges of the piece in all directions. If the flame goes through the cutout areas and hits the scrap wood, it will have a much less damaging effect on the front of the piece than if it just went through the cuts with nothing to stop it on the other side, and it will go a long way towards eliminating scorch

marks on the front. Also, keep the torch moving quickly. Make several passes but don't hold the torch in one place or you will burn through, especially on the thin areas which burn very fast. When you think you have most of the fuzzies charred, lay the piece flat and gently rub the back with a piece of 220-grit sandpaper to remove the ones that may remain. Carefully blow the dust and charred fuzzies off again using the air compressor. Examine the piece closely, and if you can still see fuzzies, repeat the process. Should you find some minor charring on the front, fold a piece of 220-grit sandpaper in half and run it in the cut on the front side of the piece. It will quickly remove all but the worst scorches. This process will not work if you intend for both sides of your cutting to be seen, but because we are adding a backer, it will do nicely for us here.

Are you ready to unveil your masterpiece and remove the pattern? To do so, use a spray bottle filled with mineral spirits and mist the paper thoroughly. Let it soak in for about five minutes, and then you should be able to peel the paper off in one piece. Remove the tape from the edges, and mist the entire piece one more time. This time rub gently with the balls of your fingers to remove any stubborn glue or paper that might remain. I know you are thinking that mineral spirits will discolor your wood, but that's not true. Let it dry thoroughly (overnight is best) before applying your finish, and, after they are finished, you won't be able to tell the difference between the piece you used the mineral spirits on and the one you didn't. For a final finish, spray the piece front and back with two coats of lacquer.

I usually use felt for my backer because I like the texture of it, but use whatever you like. It was suggested to me that I might want to try mat board from the frame shop as it is easier to clean dust off of, so that is what I did with this piece. The jury is still out on that decision for me. I am not yet sure whether I like it as much as the felt or not. I have found that the color black works best, but use whatever backer you feel completes your cutting best. Normally, I use Aleene's tacky glue to mount my backer board. In this case, however, I chose to use spray mount adhesive to help hold all the little pieces in. Use whatever product you like the best.

I personally frame all of my pieces in professionally made frames; it's easier to do than you think. If you can find a reasonable frame wholesaler in your area, I would recommend giving it a try. It really adds that special finishing touch to something you have invested so much of yourself in. The cutting deserves it, and so do you!

I hope you enjoy the challenge this pattern presents and that you will share your cutting of it with us. Remember to enjoy the experience. Good luck and happy scrolling!

Jeff has been scrolling for about two years and designing for a little over a year. He is an accomplished artist with scroll saw works hanging in four different galleries nationwide. Jeff says that he owes a great deal to Tom Mullane for his guidance and teachings. To see more of Jeff's work, visit his website, www.advancedscrollsawpatterns.com. For questions or comments, email him at: jeff@advancedscrollsawpatterns.com, or send a SASE to: 247 Lyle Road, Rossville, GA 30741.





REVERENT DENOMINATION

by Scott Roberts



SUPPLIES

1 piece oak—1 1/2" x 12" x 24" (1 1/2" x 12" x 24" is the size of the plaque)
 1/2" x 1/2" x 1/2" (1/2" x 1/2" x 1/2" is the size of the plaque)
 1/2" x 1/2" x 1/2" (1/2" x 1/2" x 1/2" is the size of the plaque)
 1/2" x 1/2" x 1/2" (1/2" x 1/2" x 1/2" is the size of the plaque)
 1/2" x 1/2" x 1/2" (1/2" x 1/2" x 1/2" is the size of the plaque)
 Temporary-bond spray adhesive
 Sandpaper, assorted grits
 Wood glue
 CA glue
 Thick rubber band
 Double-sided tape
 Golden oak stain
 Spray polyurethane finish
 Hanger of choice

Introduction

Why not display the venerable old penny as another symbol of our country's continued healing after 9/11? The Lincoln Cent gets passed between Americans like a welcome handshake every day. And who better to represent our freedom than Abraham Lincoln? Constructed of mighty red oak, this wall plaque will be a meaningful addition to any home.

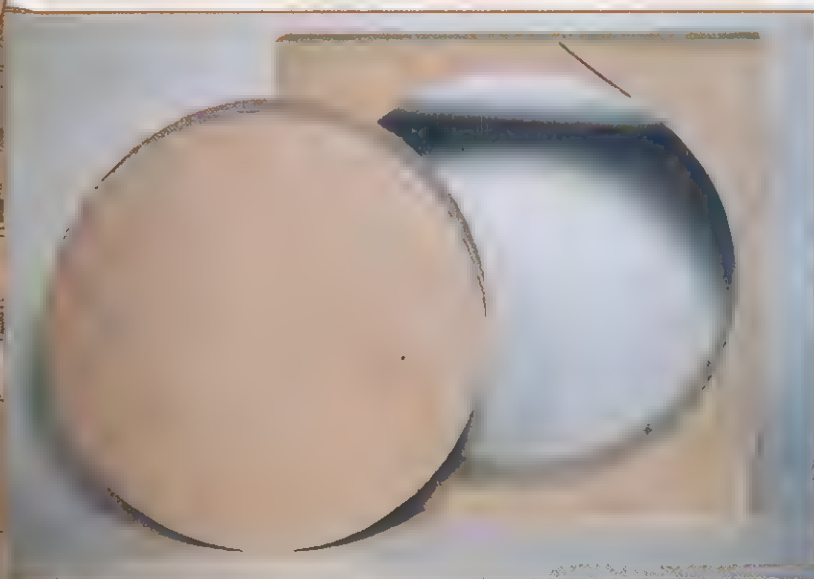
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INSTRUCTIONS



Stack the 3/4"-thick oak, the 3/8" backing plywood, and the 1/4"-thick background oak or oak ply. Temporarily secure the pieces together using double-sided tape.



Draw a 6"-Dia. circle in the center of the wood (a coffee can is a handy tracing guide), and cut along the traced line.



Sand the outer edges of the wood stack. Draw a circle 1/4" inside the edge of the circle just cut.



Change to a fresh, sharp blade to cut along the inner traced line. Enter with the grain for this cut. Go slowly to avoid blade flexion, and back up now and then to allow for dust removal and blade reorientation. Try to avoid burning, because it is somewhat difficult to sand the inside of the rim. Once finished, handle the outer rim very carefully so it doesn't snap in half.



Carefully separate all of the pieces and remove the tape. Only the 3/4"-thick oak outer rim, the 1/4"-thick oak inner disc, and the 3/8"-thick plywood inner disc will be used for the project. The remaining pieces can be set aside. Palm sand all surfaces in the direction of the grain.

Assemble the rim around the plywood base with the bottom edges flush. Wood glue the base to the rim, and glue the opening in the rim closed. Place a thick rubber band around the rim and clamp in place. Let dry overnight.



Using temporary-bond spray adhesive, attach the pattern of Lincoln to the 3-1/4" x 4-1/4" piece of oak and the lettering patterns to the 1/4"-thick oak disc. Cut along the outline of Lincoln's profile, and woodburn along all other lines. Lightly sand with a fine-grit sandpaper.

Apply oak stain to all pieces and let dry. Using CA glue, glue the background piece into the rim base, then glue the Lincoln profile into position. Spray with a polyurethane finish, attach a hanger, and display!

For questions concerning this project, send a SASE to: Scott Roberts, 136 Waverly Court, Dawsonville, GA 30934, or email: spinwood@aol.com



CURLY SUE

CURLY

designed by Shelli Robinson and cut by Kerry Robinson of SKWoodWorks



Introduction

Here is little Curly Sue, an adorable American Cocker Spaniel, as she waits for her beloved "Jim-Deer" and "Darling" (of *Lady and the Tramp* fame) to arrive home and shower her with gentle pats and heartfelt endearments. Cockers are such devoted little dogs. They are wonderful indoor companions and fit perfectly on your lap. Spoiling them comes easy as they stretch out in their own beds or curl comfortably atop your comforter. In either case, Cockers crawl irretrievably into your heart and warm you from the inside like a perfectly brewed cup of coffee. As Curly Sue patiently waits with her velvety muzzle across her ruffled paws, just the hint of her salon-trimmed nails are visible to the left of her puffed cheek and under the mass of a wavy, curly ear!

These dogs are also famous for their eyelashes, which are present (and precious) on both male and female dogs. Cocker pups are some of the all-time cutest animals I have ever seen (and this is coming from a bona fide

Golden Retriever and horse fanatic)! We had a fawn-colored, curly-haired "Goldie" Cocker Spaniel in our extended family when I was growing up, and she was as much fun to visit as our relatives!

"Accentuate the positive" was what we were thinking as we looked for the appropriate piece of wood from which to cut the pattern, and we soon found this curly maple board at our local woodshop. To give this piece a "mat" or framed area, I squared the corners around the dog, which also helped with the framing process. However, you can easily round off the 90° angles to create an oval shape that may fit into a narrower plank, possibly with a live edge. Kerry used a piece of Honduran mahogany for the frame to beautifully emphasize the red-gold in the maple and bring out the colors in the dog. He measured and built the frame according to the final dimensions of his curly board. Depending upon your preferred thickness and availability of wood, your frame will vary.

SUE

CURLY SUE

SUPPLIES

Wood: curly maple or wood of choice—~~one piece~~
~~3/4" x 10" x 13"~~; Baltic birch or other plyboard—
~~one piece 1/8" x 10" x 13"~~
 Tools: scroll saw with No. 2/0 spiral blades; drill with
 assorted bits; square
 Temporary-bond spray adhesive or Removable
 Adhesive Paper
 Sandpaper
 Black spray paint
 Clear shellac spray
 Wire nails, 1/2"
 Wood for frame (optional)

you who have discovered the ease of working with Removable Adhesive Paper, just peel off the pattern! Otherwise, remove your pattern using your preferred method and clean the wood surface. Sand the back of the board.

Cut the 1/8"-thick plyboard to match the size of the finished piece. Spray paint the plyboard black, or use your color of choice, and let dry.

To finish, Kerry inserted the scrolled maple piece into the frame. He then placed the plyboard on the back and tapped it into the maple using 1/2" wire nails. (Make sure the nails don't go all the way through your piece.) Then he applied several coats of clear shellac spray. There aren't any very delicate or fragile "Don't-touch-'em!" pieces on this project, so a glass overlay is not really necessary. The clear shellac coat provides a smooth enough finish that you can simply dust it off as needed.

We are SKWoodWorks, which stands for "Shelli Kerry Woodworks." For more information, or for questions concerning this project (including questions for Kerry about framing this piece), visit our website, www.skwoodworks.com, or send a SASE to: SKWoodWorks, P.O. Box 583, Pleasant View, TN 37146. I usually draw in standard 8-1/2" x 11" letter-size patterns for easy cutting, mounting or framing. We sell the adhesive paper, finished pieces and patterns off of our website. Pattern requests and suggestions are always welcome!

INSTRUCTIONS

Using your method of choice, apply your pattern to the clean surface of your wood. We use Removable Adhesive Paper for ALL of our scrolling projects. Because of the thickness of the wood used for this design, it was cut individually, rather than stack cut. Make sure your blade is square and check your square while scrolling. Pre-drill all your holes, and make starter holes at the end of all the single lines, such as the lines on the muzzle. Cut out the smaller areas first. Kerry cut this pattern following the usual "center-working-out" method. Of course, let your own experience guide your hands and direct your blades.

When you are finished, remove the pattern. For those of

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27098 Photo Frame	\$2.35	\$2.05	\$1.80	\$1.65



Photo Insert



White Arabic



White Roman



Gold Arabic



Pink Arabic



Ivory Arabic



Ivory Roman

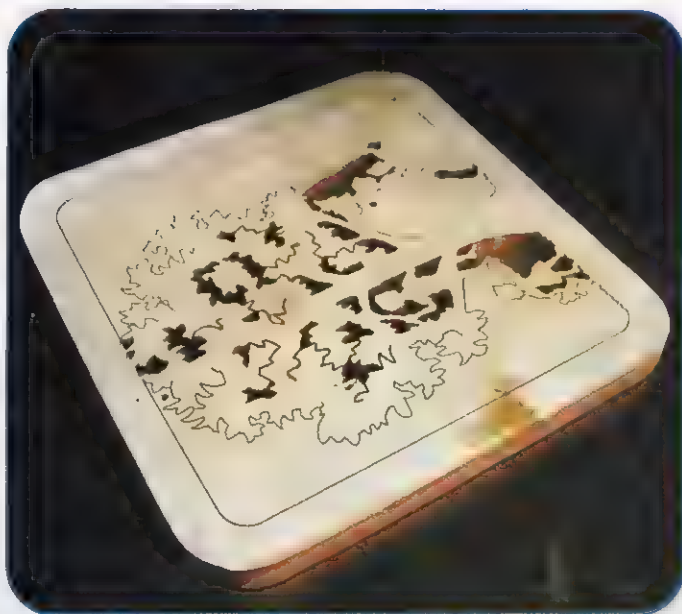
by John Polhemus (aka "The Little Engineer")

[illegible]

I grew up in a rural area where large families were the norm. Being one of nine children, of which I was number three, had its benefits. One was that there was always someone to play with, whether they liked it or not. Despite

This pattern isn't representative of my siblings and me because the children in this scene are normal! It's a friendly setting with a nice, safe swing. Anybody caught under our tree would have been ducking falling objects, like the time one of the swing ropes broke just as my sister got the swing going full tilt. (I still say it was just a coincidence that one of my brothers was up in the tree with a hatchet at the time.) Looking back on our childhood, I don't know what amazes me more: that my siblings and I survived it or that our parents did!

INSTRUCTIONS



Recommended interior areas to be cut first.

Apply the tree swing pattern to the wood. Cut the outside of the pattern. Drill 1/16" blade access holes, and cut the interior holes, the veining cuts of the tree, and the smaller areas around the children. Some areas are too small for a 1/16" drill bit, so use a No. 60 in those spots. Save the larger areas, such as between the frame and the swing rope, to cut last.



Make holes at "X" marks on base.

There are two "X" marks inside the dashed outline on the base pattern. They indicate where to place the tree swing on the base. Use an awl, nail, or small drill bit to make holes at the "X" marks on the base. The holes, which will remain after the base has been finish sanded, will be used to align the tree swing to the base.



Cutting beveled edge of base.

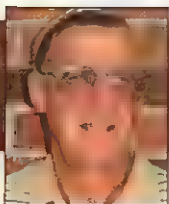
Apply the base pattern to the wood you've chosen. Tilt your saw table 20°, and cut the base so the edge bevels outward from the top to the bottom.



Aligning and gluing the tree swing to the base.

Finish sand the tree swing and base. Apply CA glue to the bottom of the tree swing and align it on the base by covering the holes. Apply the finish of your choice.

For questions concerning this project, send a SASE to: John Polhemus, 3000 Charleton Ct., Waldorf, MD 20602; email: fretsawyer@verizon.net



PEN AND PENCIL BOXES USING

by Gary MacKay



SUPPLIES

Wood, wood of choice—one piece $1\frac{1}{4}$ " x $3\frac{1}{2}$ " x 15" long (for sides and bottom of box with dovetail joints) or one piece $1\frac{1}{4}$ " x $3\frac{1}{4}$ " x 15" (for sides and bottom of box with box joints); scrap wood—four pieces $1\frac{1}{2}$ " to $3\frac{1}{4}$ " x 2" x $3\frac{1}{2}$ " (for clamping box sides)
Tools: scroll saw with No. 6 reverse tooth scroll saw blades, straight edge and utility

knife, belt sander, two pairs of pliers, two clamps, screw type or quick grip
Wood glue
Glue stick or spray glue
Clear packaging tape
Sandpaper, assorted grit
Sharp pencil
Clear finish of choice

Introduction

Dovetails and box joints have been around for hundreds of years. Through the years, they have been cut by hand, band saw, scroll saw, table saw, and router table. This article shows how to use your scroll saw to make a box with dovetail or box joint corners that would be handy for holding pens and pencils and other objects that clutter your desk.

Any $1\frac{1}{4}$ "-thick wood can be used. All the waste from cutting the joints will fit in one hand. Using combinations of contrasting woods for the box sides will draw attention to your wood joinery. Red oak, poplar, and aspen are often readily available at your local home improvement store. Other good choices include ash, cherry, mahogany, and maple; many more wood choices are available through the advertisers in this magazine.

THROUGH DOVETAILS AND BOX JOINTS

INSTRUCTIONS



It would be a good idea to practice cutting and gluing the joint you want to make using scrap wood or less expensive woods. You will need two pieces, each measuring $1/4" \times 1-1/2" \times 3-1/2"$, to practice the dovetail joint, or two pieces, each measuring $1/4" \times 1-1/2" \times 3-1/4"$, to practice the box joint. By practicing on scrap wood you will better understand the difference of cutting to the line versus on the line, as mentioned in the instructions, so the joints will fit properly. You will also get the feel for how much glue to use, including how to apply it and clean up glue squeeze-out before you start using your "good" wood.

Cut four $2-3/4"$ -long pieces from the wood you have chosen for either joint type. These will be the sides of your box. (The remaining piece will be used to make the bottom of the box.) Apply clear packing tape to one side of each of the four pieces.

There are four "Pins and Tails" sets of joint patterns in the pattern section. Two are dovetail joint patterns and two are box joint patterns. Choose the pattern for the joint type you want to cut and make four copies of it. Use a straight edge and sharp utility knife to cut each of the patterns exactly on the dashed lines.

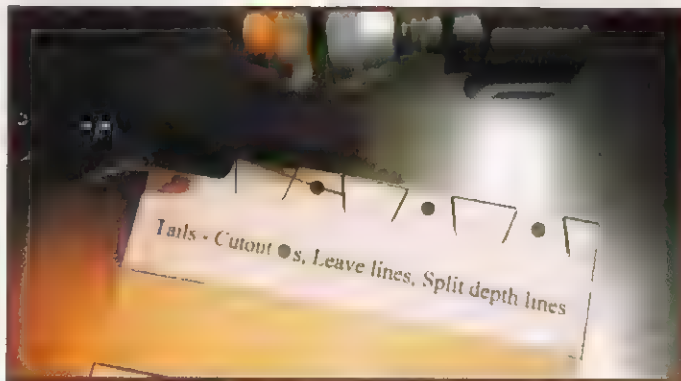
Use a glue stick or spray glue to apply a "Pins" pattern to each long end of two of the pieces of wood for the sides. Apply a "Tails" pattern to each long end of the other two pieces of wood for the sides. The end of the patterns with the dots must be flush with the edge of the wood and centered to the width of the wood.



Stand one of the pieces on end on a flat surface, so the edge with the dots is down. Place another piece flat on the surface and against the piece standing upright. Use a sharp pencil to trace the edge of the piece laying flat onto the pattern on the piece standing upright. This depth line is traced, instead of being printed with the pattern, so it will match the exact thickness of the wood you are using. Repeat this process on both ends of all four pieces of wood.

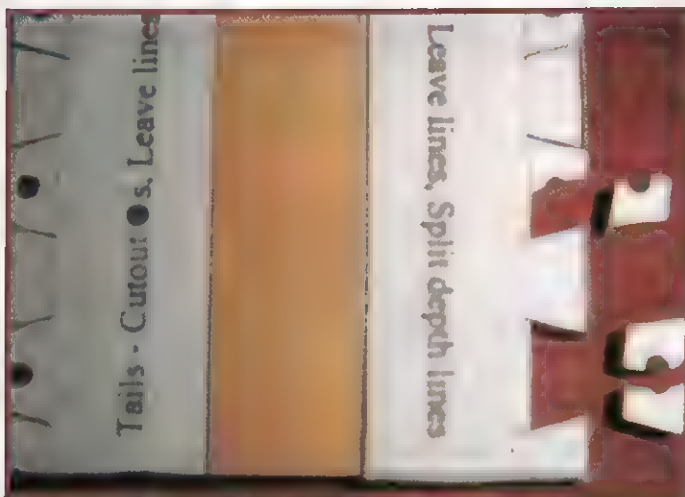
Note: Where it says "split depth lines" on the patterns, it means you should cut right on the lines you just traced. Where it says "leave lines," it means you should cut just to the line so you can still see the line, but not the white paper between the line and the cut.

Making the sides with dovetail joints



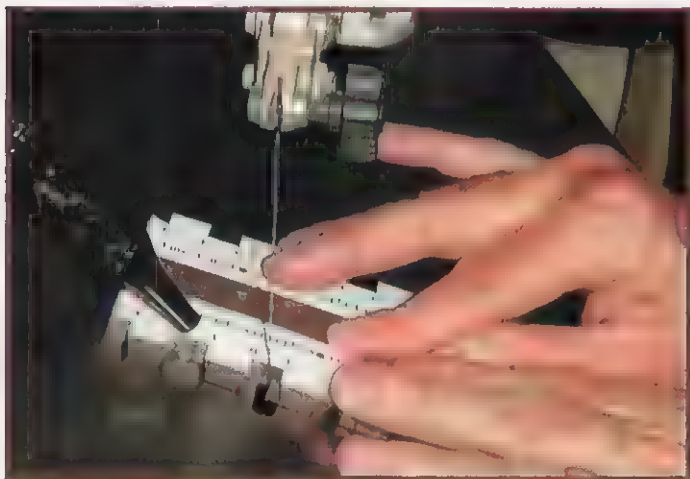
Start with the two side pieces that have the patterns labeled "Tails" on them. The spaces with a dot in them will be cut away. Cut down to the depth line you traced, leaving the line with the space that does not have a dot in it.

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Back out of the cut, and cut from the edge of the wood, through the dot to the traced depth line, then to a corner. Turn the wood around and finish cutting the traced line to the other corner.

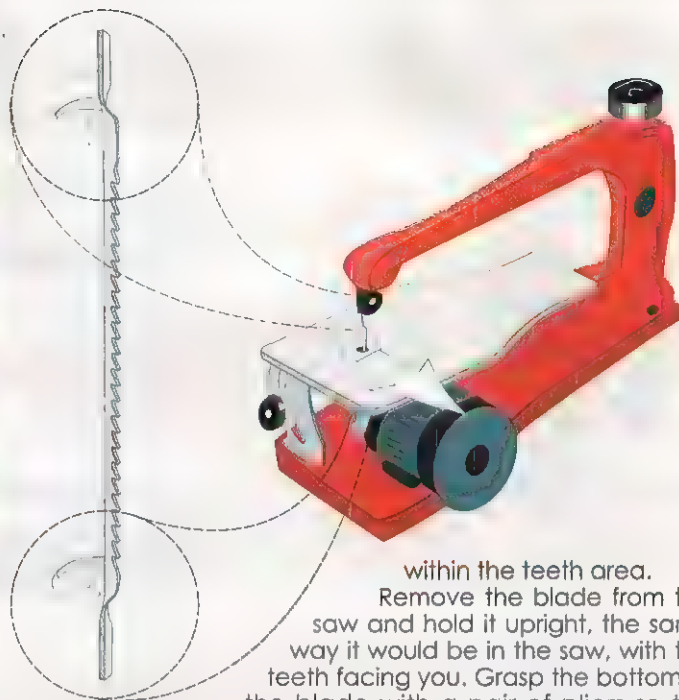
The two side pieces with the patterns labeled "Pins" on them are cut next. Tilt the right side of your scroll saw table down 14°. Using a No. 5 blade, cut right on the pattern lines marked "R" down to the depth line you traced. Tilt the left side of your scroll saw table down 14°. Using a No. 5 blade, cut right on the pattern lines marked "L" down to the depth line you traced.



The spaces with the dot will be cut away in these two pieces also. Because the left and right sides were cut at 14°, a special technique is used to cut away the waste wood. The ends of a blade will be twisted so the teeth face to the right, and the right side of the saw table will be tilted down. Then, instead of standing in front of the saw and cutting, you'll stand at the right side of the saw and cut away the waste wood.

Twisting the blade ends

Install a blade in your saw. With the blade in the full up stroke, use a felt-tipped marker or pencil to mark the blade where it comes through the table. When you twist the blade, you don't want the twist to come up through the table and ruin your cut. **Note:** If the mark ends up being on the teeth, drop the mark down to the point where there are no teeth. You will be twisting the blade at this mark, and it will make the blade too weak if you twist it



within the teeth area.

Remove the blade from the saw and hold it upright, the same way it would be in the saw, with the teeth facing you. Grasp the bottom of the blade with a pair of pliers so the mark you made is in the jaws of the pliers.

Grasp the blade with a second pair of pliers just below the first pair of pliers, leaving about 1/4" between them to allow the blade to twist. Twist the blade so the teeth face to the right.

With the blade still upright as it would be in the saw, grasp the top of the blade with a pair of pliers just above where the teeth end. Grasp the blade with a second pair of pliers just above the first pair of pliers, leaving about 1/4" between them to allow the blade to twist. Twist the blade so the teeth face to the right.

Tilt the right side of your scroll saw table down 14° and install the twisted blade in your saw. The teeth should be facing to your right when you are in front of the saw. Move to the side of the saw and make some straight line test cuts on a piece of scrap wood to get a feel for the blade's tracking direction. When you are comfortable cutting with it, cut the waste material from the spaces with a dot in them.

(The assembly for both boxes is the same and follows the instructions for cutting the box type joint.)

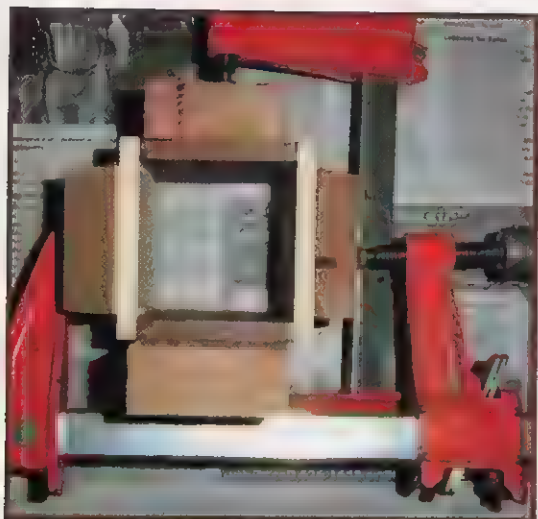
Making the sides with box joints

Start with the two pieces with the patterns labeled "Tails" on them. Cut the spaces with the dot in them down to the depth line you traced. Cut so you just leave the line on the space that does not have a dot in it (as shown for cutting the dovetail joint tail pieces). Back out of the cut and cut from the edge of the wood, through the dot to the traced depth line, then to a corner. Turn the wood around and finish cutting the traced line to the other corner.

On the two pieces with the "Pins" patterns on them, cut on the line, instead of leaving the line, and finish them the same way as the tails pieces.

Gluing up the box sides

Remove the patterns and tape from the box sides and sand off any wood fuzzies on the joints. Dry test fit the joints and make any needed adjustments to the tails side of the joint. If a joint is snug or fits halfway, it may only need to be tapped in place with a hammer and block of scrap wood. Just be sure it's not so tight it would split the wood.



Put a small puddle of wood glue on a piece of old newspaper. Use a toothpick or old scroll saw blade to apply glue to the pins and tails and put the joints together. Use four clamping blocks and two clamps to clamp the box sides together. Remove any glue squeeze-out from inside the joints of the glued up sides. A flat blade screwdriver works well for this. **Note:** Dovetail joints seem to clamp up OK, but box joints can slip out of position. Check the box with a square before the glue sets and adjust as needed.

Making and attaching the box bottom

Use a belt sander to flatten both ends of the glued up box sides. Set the box on the wood for the bottom and trace around the outside edges of the box. Cut the bottom just outside the pencil lines so it will be slightly larger than the actual base of the box. Glue and clamp the box bottom onto the box sides. Clean up any glue squeeze-out on the inside of the box. After the glue dries, use the belt sander to sand the sides and box bottom smooth. Apply the finish of your choice.



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Half dovetail and box joint keys

You can also make interesting joints that look like half dovetail and box joint keys. If making the dovetail joints, reduce the width measurements of two box sides by 1/2", so they measure 1/4" x 2-1/4" x 3-1/2". (The other two sides will remain at 1/4" x 2-3/4" x 3-1/2".) Glue a 1/4"-thick x 1/4"-wide x 3-1/2"-long strip of contrasting color wood to the two long edges of the smaller box side pieces. All four sides will now be 2-3/4"-wide. Let the glue dry completely, then cutout the dovetail joints as in the previous directions. For the box joints, follow the same process, using 3-1/4"-long box sides.

For questions concerning this project, send a SASE to: Gary MacKay, 2779 Canvasback Trail, Myrtle Beach, SC 29588; email: gmackay@sccoast.net



by Dan and Ray Wilckens



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Figure 1. The structure of the proposed model.

(continued)

Wang, S. Q. & Zhang, J. 2002. *Journal of Oceanography*, 10, 101-105.

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$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) \delta(x-a) dx = f(a)$

Instructions

Preparing the wood

Copy the patterns, saving the originals for future use. Plane selected wood to proper thickness. Cut wood to size of patterns. All straight-edge pieces should be cut to size on a table saw or equivalent for accurate dimensions and straight edges. Cut scroll saw edges oversize.

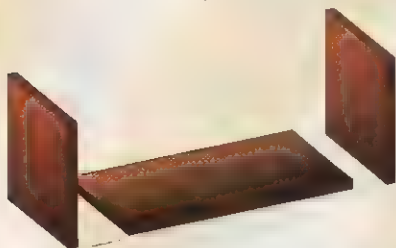
Attach the patterns to the wood using a temporary-bond spray adhesive. (It takes practice to know the right amount to apply. Apply too much, and the pattern is hard to remove; not enough, and the pattern may come loose during sawing.) When attaching the patterns, align the straight edges of the patterns with the straight edges of the wood you have cut.

Using a small drill bit, drill a hole in the waste area of each cutout. Feed the scroll saw blade through the small holes and cut along the lines. Feed the blade through the next hole and so on, doing all the interior cuts first. For exterior cuts, you can cut in from the edge or drill a small hole just outside the exterior line.

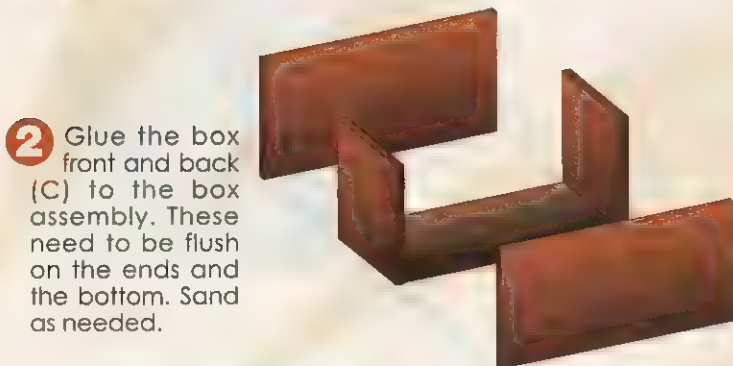
Remove the patterns from the wood by peeling them off. You may try using a hair dryer to remove some pieces if they are attached too firmly. Be careful because some cuts are very fragile. Sand pieces using a belt sander or handheld sander. Remove any burrs and clean up any cuts using an X-acto knife or needle pick.

Assembling the box

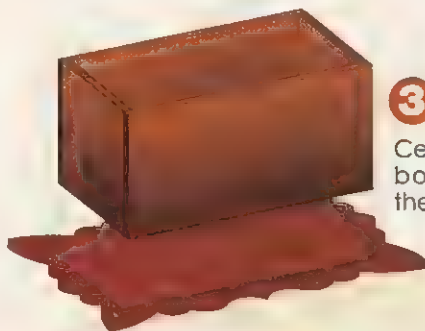
Throughout assembly, fill any seams with a bead of glue, and sand while the glue is still wet. This should fill the seams to match the parent wood.



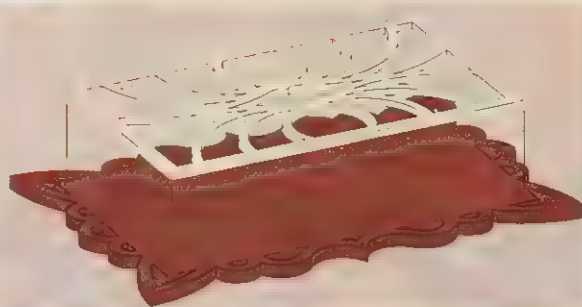
- 1** Glue the box sides (B) to the box support (D). Make sure these are flush on the ends and the bottom. Sand as needed.



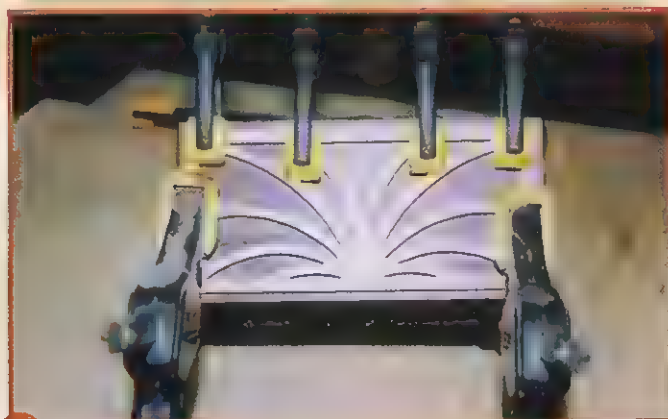
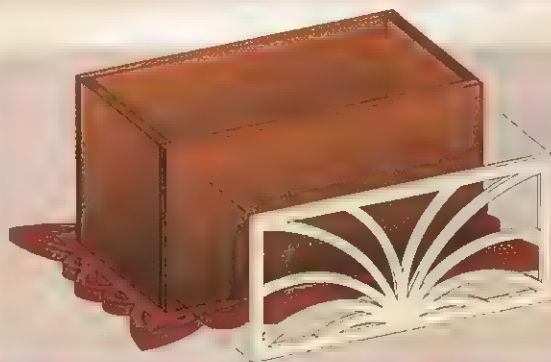
- 2** Glue the box front and back (C) to the box assembly. These need to be flush on the ends and the bottom. Sand as needed.



- 3** Center and glue the box bottom (A) to the box assembly.

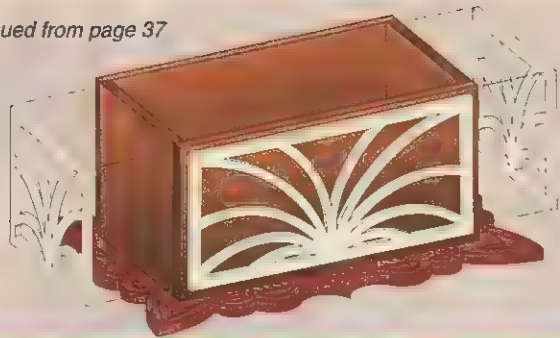


- 4** Center the lid overlay (E) on the lid and glue in place.



- 5** Center the front overlay (F) on the front of the box and glue in place.

continued on page 38



- 6** Center the side overlays (G) on the sides of the box and glue them in place. Allow all glue to dry for one hour.



- 7** Attach the small hinges to the top back of the box assembly. (**Note:** To assist in positioning the hinges, apply a small piece of double-face tape to the backs of the hinges.) Carefully drill pilot holes, which are smaller than your hinge screws, in the center of the holes in the hinges. Be careful not to drill through the wood. Start the small screws, but do not completely install them. Remove the screws and sand them shorter, so they will not go through the project.

Remove the tape from the hinges and, after placing a small amount of furniture wax on the screws, attach the hinges. Clamp the lid and the box assembly together, making sure that they are lined up, and mark the location of the holes in the hinges on the lid. Unclamp the lid and the box and drill the pilot holes in the centers of the marked holes. Attach the hinges to the lid using the same process.

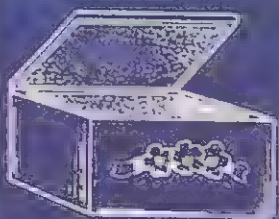


- 8** Remove the lid from the box. Apply spray lacquer to the box and the lid following the manufacturer's instructions, and allow it to dry completely.



- 9** Use masking tape to mask off the top edge surfaces of the box. Flock the entire interior of the box, following the manufacturer's instructions to apply the initial coat of flocking adhesive and then the flocking itself. When all the surfaces are completely covered, allow the box to sit undisturbed for 10-12 hours. After complete curing, turn the box over and pour out the excess flocking to be saved and used for a future project. Reattach the lid, and enjoy your new box!





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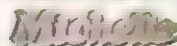
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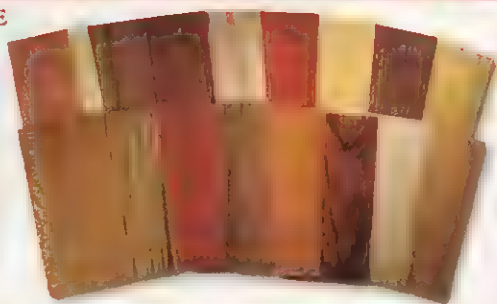
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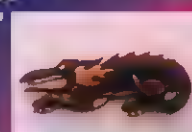
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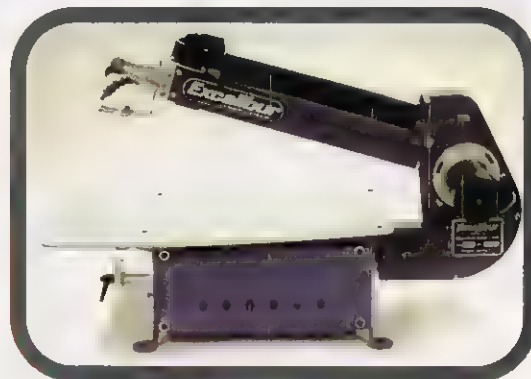
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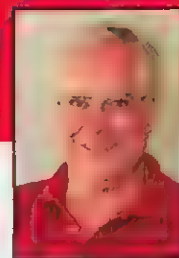
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Scroll saw artist Wayne Fowler was among the first to have put this new machine to the test, and here's what he says about the EX-21:

Before I tell you about the new Excalibur EX-21 scroll saw, my code of ethics requires me to tell you about two conflicts of interest I have. First, I have been cutting on Excalibur saws for about sixteen years. Secondly, I am a proud Canadian, and the Excalibur is made at a plant about 20 minutes from where I live here in Canada! While those two factors may tend to bias me favorably toward the new saw, I will try my best to give an unbiased review of my experiences with it.

I had the opportunity to use the new saw at the Toronto Workshop Show this past March. I was able to cut on it, between conversations, for three days during the show. The first noticeable difference between the EX-21 and just about any other saw is the fact that the saw table is fixed, and it is the saw itself that tilts in either direction for angle cuts. The second major difference for current Excalibur owners is that the cutting plate is much larger than on the EX-30 or EX-19 saw. Although I have never found the size of the plate on the older saws to be an issue, the bigger plate does provide some level of comfort. As with the older saws, this plate has a low friction powder coat to minimize drag on the wood as you cut.

The tilting mechanism

The EX-21 saw is mounted on a central "axle," with a crank on the front for tilting it in either direction. There is a dial for selecting the angle of tilt and a plunge mechanism to ensure that the saw has been returned to 90°. Both are very useful features. The method of placing the saw at 90° using the spring plunger and hole behind the dial is very precise, and I certainly need that precision for some of our finer designs. I used the saw to cut a tiger head drawn by my son Jacob on 1/2"-thick mulberry, and I was quite pleased with the outcome. The design has a lot of fine line detail, particularly its whiskers, and the many close cuts were all handled well by the saw.

Blade changes

Whenever anyone asks me what scroll saw to buy, I always suggest that they have the salesperson show them how to change the blades, then imagine doing that 20,000 times! I was pleased that the EX-21 has a blade holding system similar to the EX-30 that I cut on, although I found the EX-21 mount a little easier to use. The clamp mechanism is the same, but there is a wider, longer slot for the blade to go into so it is easier to find when you are not looking. That may sound odd but, as with other Excalibur saws, when you are doing fretwork you enter from the top of the piece and attach the blade on the bottom. I have done this probably 50,000 to 100,000 times with all the fretwork that I do, so it is extremely important to me that the reattachment process is fast and easy.

Fretwork

Because I like to insert the blade into the hole from above when doing fret cutting, and since that is the best way to insert the blades on the Excalibur, I find it is a very handy saw for fretwork. One big improvement with the new saw is that the arm can remain elevated by itself. Due to this feature, I could use both hands to position the wood and thread the blade into the hole without using my wrist to keep the arm raised. The only downside that I found about this was that the arm sometimes

had a tendency to lower quickly, resulting in some bent blades. Once I got used to the differences, however, I achieved a modest increase in the speed at which I normally fret cut on my EX-30.

Angle cutting

The angle mechanism for tilting the saw is very precise, so if you need to be 2° right or left of true, it is very easy to set the saw for that angle. I cut two very small burl castles at the show and was able to make accurate adjustments, down to fractions of a degree, as I cut the smaller and smaller layers of the castles. I was also able to cut very thin walls, mainly because the cutting surface and the plate remain parallel to the ground as the saw tilts. Another benefit to the plate remaining in the same position was that I didn't have to change my cutting posture for angle cutting. With my current saw, I sometimes have trouble seeing what I am cutting when the plate is tilted, and I need to lean over and angle my head. I also had better light for cutting since the light was above me and not to the side.

A few other observations

I am a left-handed person in a right-handed world, so I had a few issues with the EX-21 configuration which is, as with most saws, better designed for right-handed sawyers. After talking this over with the saw designer, we decided that the saw could be made more "left-hander friendly" by simply detaching and reattaching the blower and hold-down clamp on the right side of the saw. This still left me with the problem of the arrangement of the tensioning arm and speed control dial on the upper arm, however. I kept accidentally hitting the speed control dial with my left arm as I was fret cutting because I worked the tensioning lever with my left hand. I would then have to stop to readjust the speed. This was an inconvenience, but not a big problem, as I am sure that I would get used to the control arrangement given more time to practice.

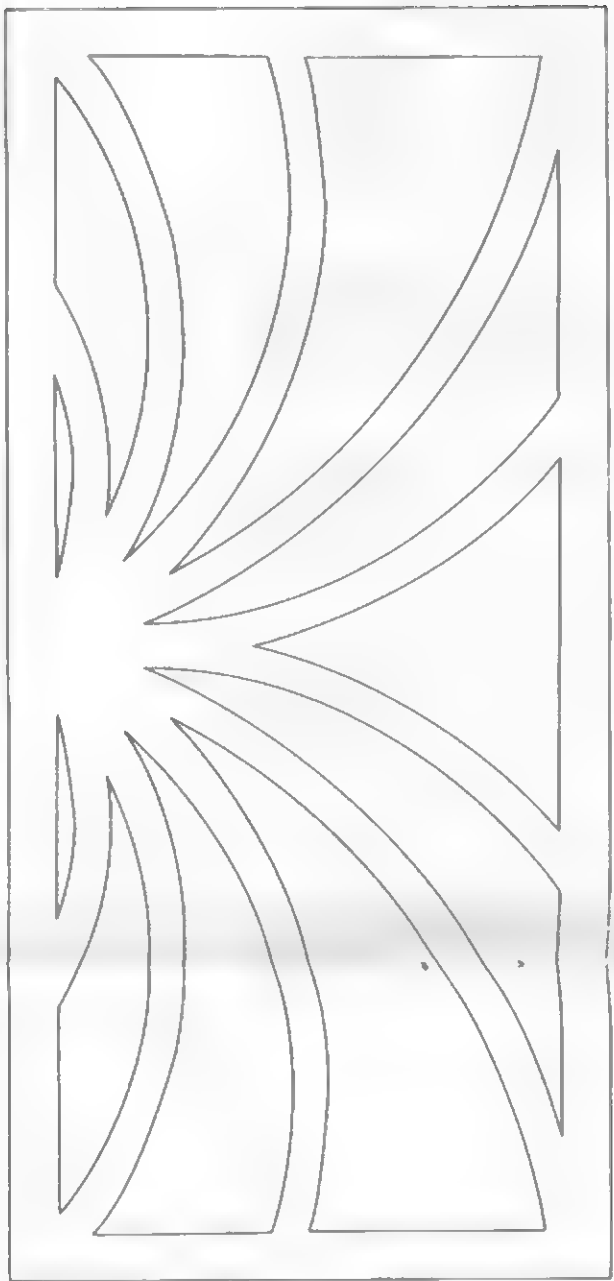
I was pleased that over the three days of cutting I didn't break any blades, although I did dull out a few, and I changed blade sizes a number of times. Because I wanted to see what would happen if I did break a blade, I removed the blade and started the saw at full speed. The saw ran quietly with very little bounce, so I assume that damage would be minimal during a break.

The motor on the EX-21 is a variable speed direct drive and seemed to be quite powerful. However, I didn't cut extra-thick hardwood, so I can't comment on how strong the EX-21 is in comparison to other saws that I have cut on. Finally, the dust blower on the EX-21 is quite a bit better than the one on the EX-30 and is much easier to position over the work piece.

General impressions

I really enjoyed my stint with the EX-21, (even though it is purple and not basic black), and I am certain I could find room in my workshop for the new saw. However, I am also still very much enthralled with my EX-30, so I am currently trying to work out an excuse to purchase the EX-21 for my wife! So far, my main justification is the EX-21's superior angle cutting. I guess I'll need to generate a little revenue, so I'm off to the next Star Trek convention, where my burl castles have been selling well!

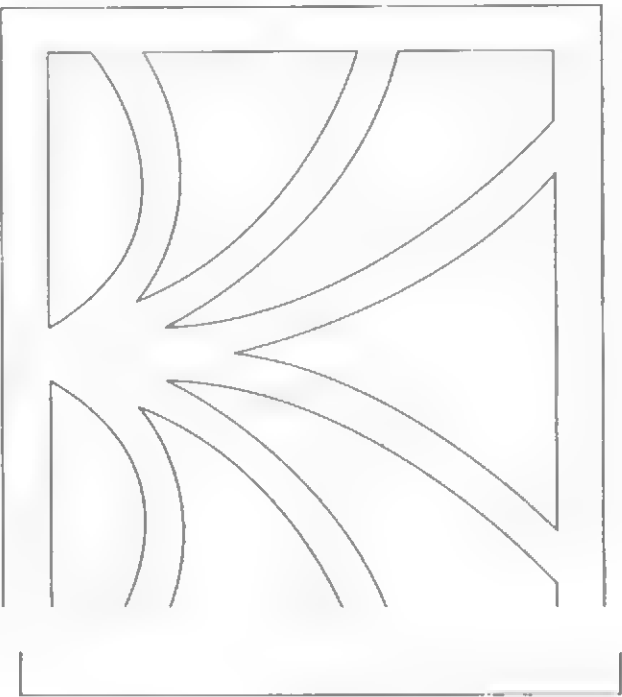
Freework Box
Full Size Patterns
from page 36



Freework Box Front Overlay (F)
Cut 1



Freework Box Front/Back (G)
Cut 2



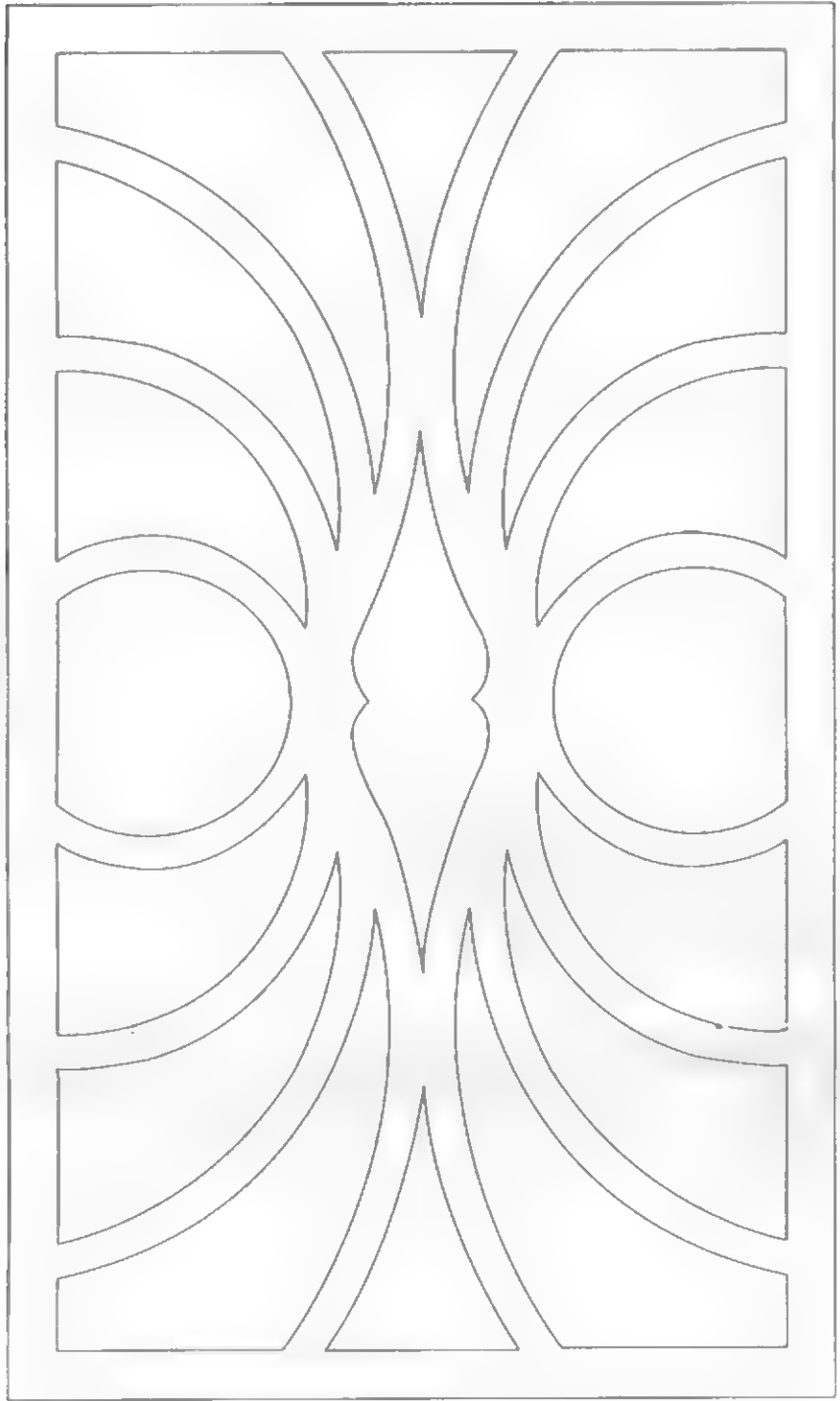
Freework Box Side Overlay (G)
Cut 2
1/8" x 3-1/8" x 3-5/8"



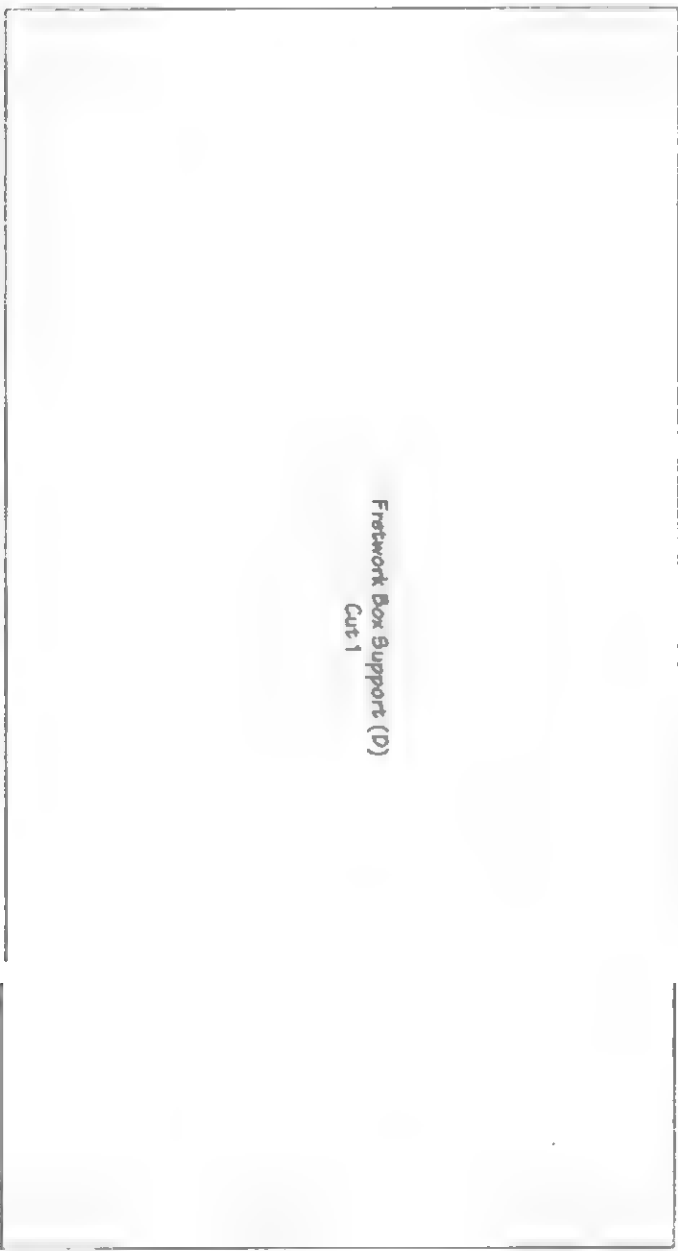
Freework Box Side (B)
Cut 2



Freework Box Lid/Bottom (A)
Cut 2



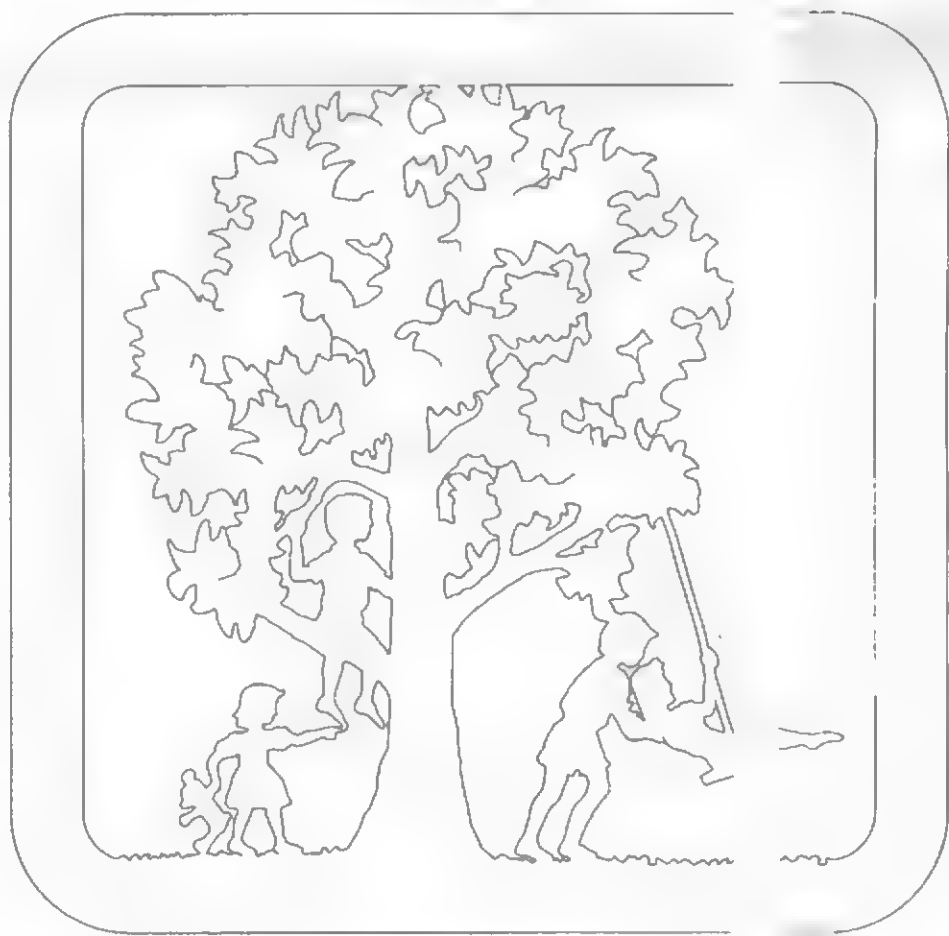
Freework Box Lid Overlay (E)
Cut 1



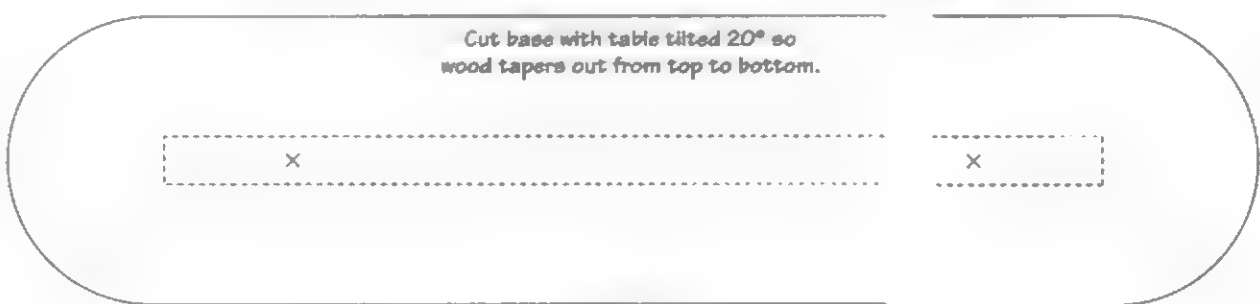
Freework Box Supports (C)
Cut 1



Red-Tail Hawk
Full Size Pattern
from page 64



The Tree Swing
Full Size Patterns
from page 30

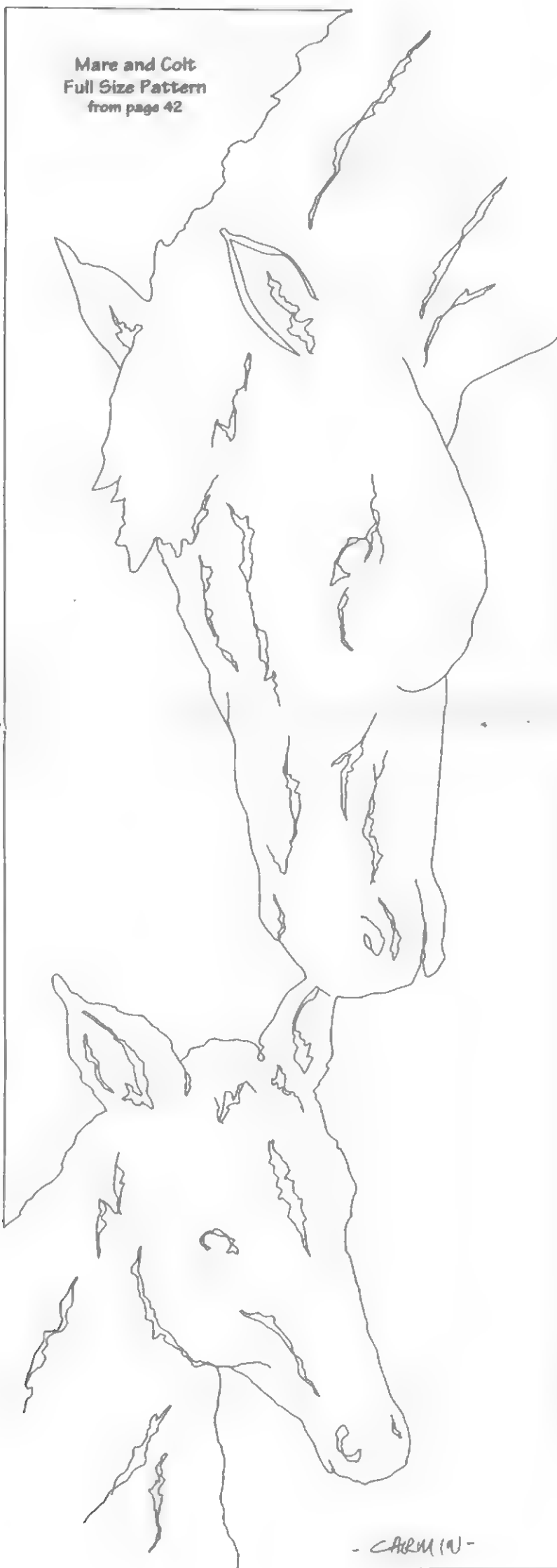


Cut base with table tilted 20° so
wood tapers out from top to bottom.

Tree Swing Base

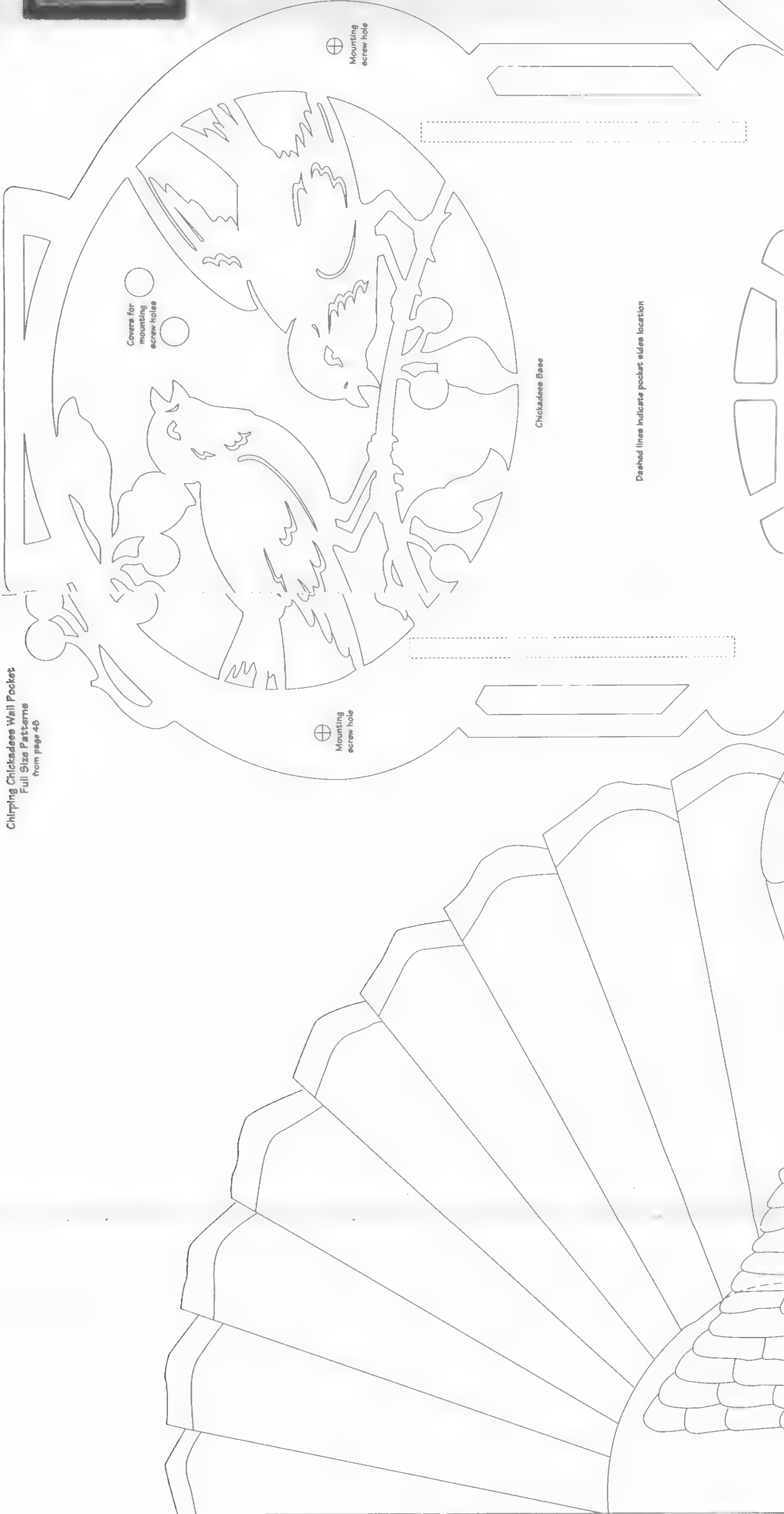


Whiskers
Full Size Pattern
from page 12



Mare and Colt
Full Size Pattern
from page 42

Chipping Chickadee Wall Pocket
Full Size Pattern
from page 45



Chickadee Base

Dashed lines indicate pocket edge location



FULL SIZE PATTERN SECTION NO. 2 SEPTEMBER 2005

Side A	
Screaming Eagle.....	from page 8
Chipping Chickadee Wall Pocket.....	from page 45
Turkey Beard Holder Intarsia.....	from page 56
Side B	
Whiskers.....	from page 12
The Tree Swing.....	from page 30
Firework Box.....	from page 36
Mare and Colt.....	from page 42
Red-Tail Hawk.....	from page 64

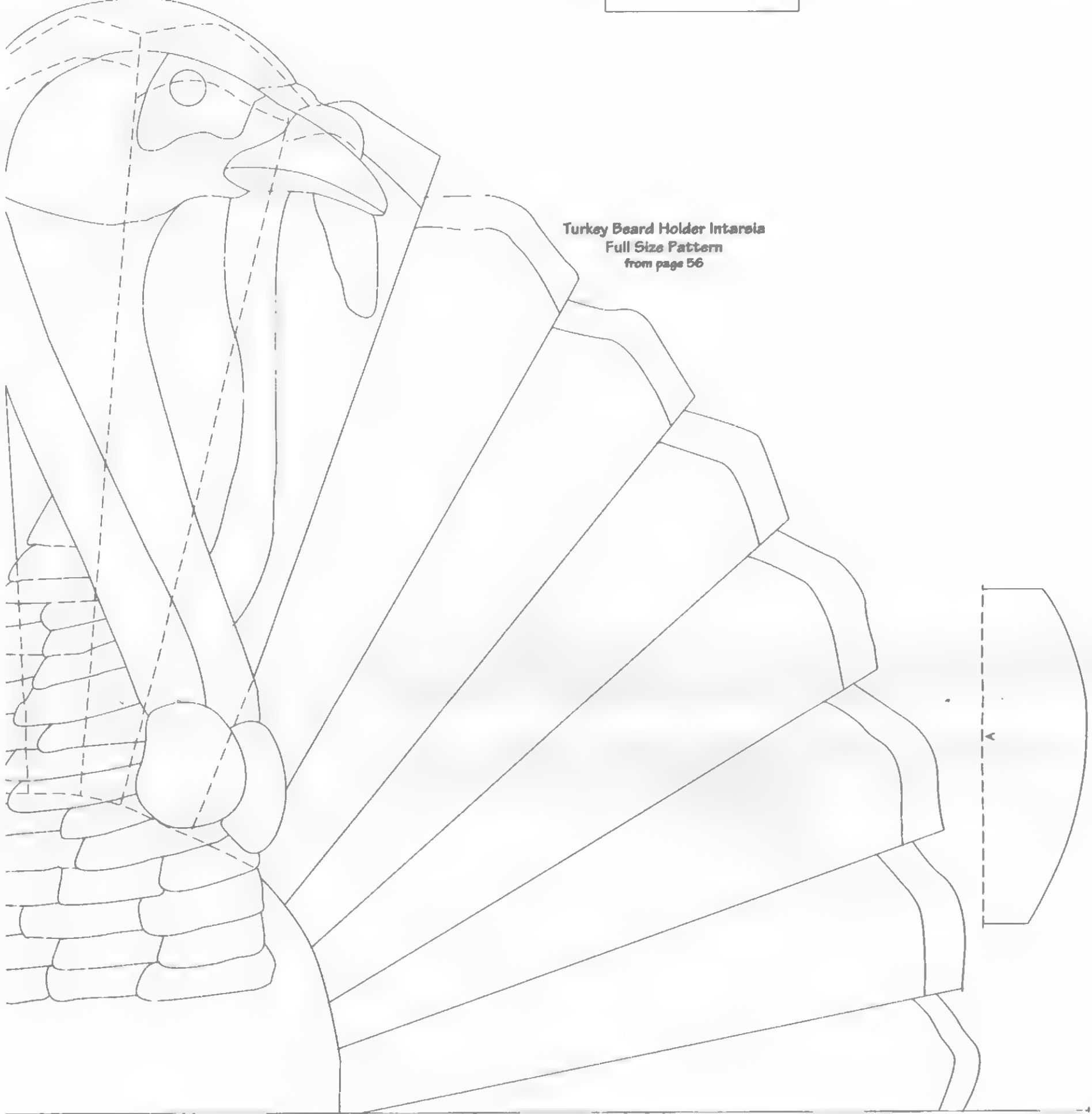
Metric Conversions:

1 inch = 25.4mm = 2.54cm = 0.0254m

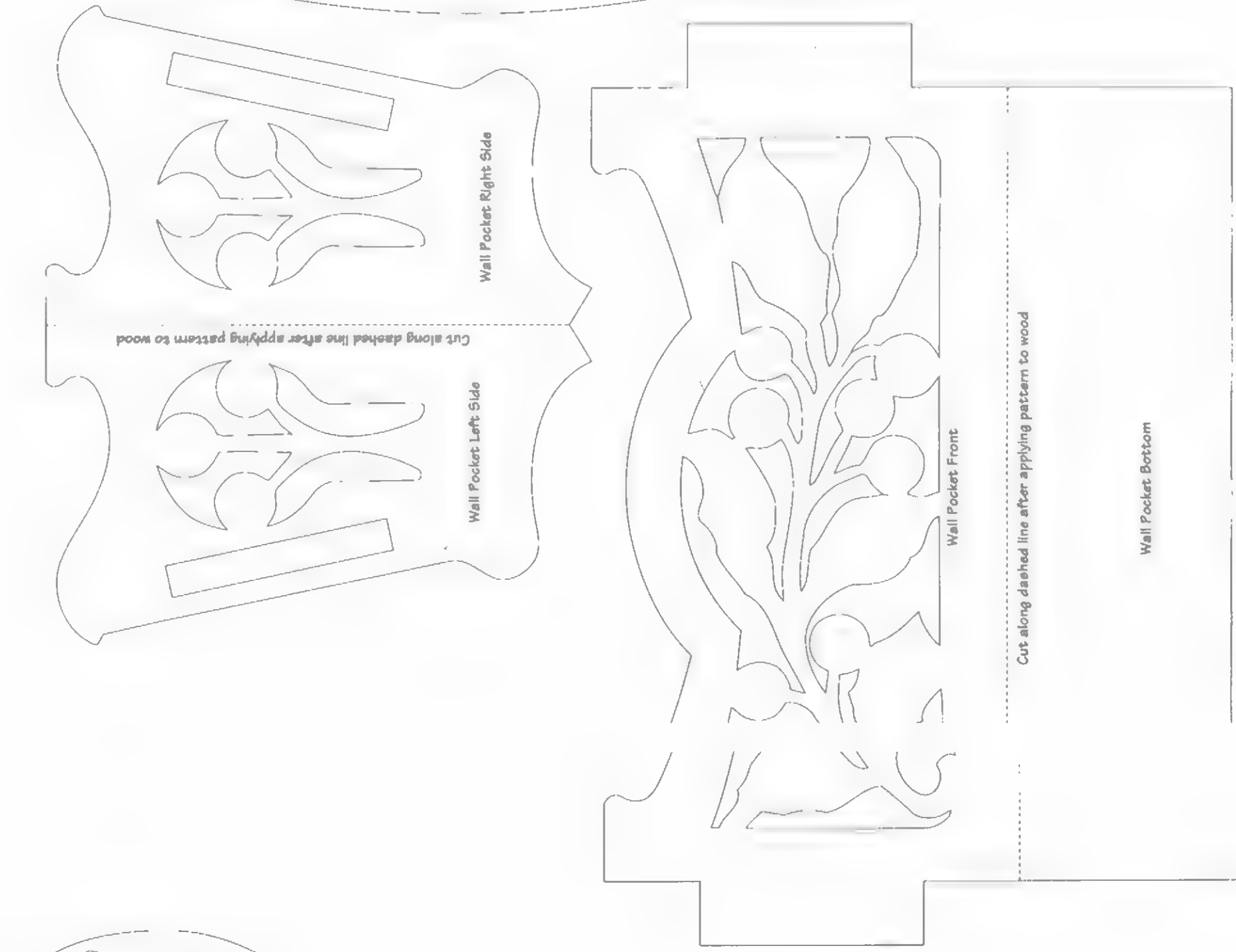
Common Measurements:

1/16" = 1.59mm	5" = 127.0cm
1/8" = 3.18mm	6" = 152.4cm
1/4" = 6.35mm	7" = 177.8cm
3/8" = 9.53mm	8" = 203.2cm
1/2" = 12.7cm	9" = 228.6cm
5/8" = 15.9cm	10" = 254.0cm
3/4" = 19.1cm	11" = 279.4cm
7/8" = 22.2cm	12" = 304.8cm
1" = 25.4cm	13" = 330.2cm
1 1/8" = 31.8cm	14" = 355.6cm
1 1/4" = 38.1cm	15" = 381.0cm
1 3/8" = 44.5cm	16" = 406.4cm
1 1/2" = 50.8cm	17" = 431.8cm
1 5/8" = 57.2cm	18" = 457.2cm
1 3/4" = 63.5cm	19" = 482.6cm
1 7/8" = 69.9cm	20" = 508.0cm
2" = 76.2cm	21" = 533.4cm
2 1/8" = 82.6cm	22" = 558.8cm
2 1/4" = 89.0cm	23" = 584.2cm
2 3/8" = 95.4cm	24" = 609.6cm
2 1/2" = 101.8cm	25" = 635.0cm
2 5/8" = 108.2cm	26" = 660.4cm
2 3/4" = 114.6cm	27" = 685.8cm
2 7/8" = 121.0cm	28" = 711.2cm
3" = 127.0cm	29" = 736.6cm
3 1/8" = 133.4cm	30" = 762.0cm
3 1/4" = 139.8cm	31" = 787.4cm
3 3/8" = 146.2cm	32" = 812.8cm
3 1/2" = 152.6cm	33" = 838.2cm
3 5/8" = 159.0cm	34" = 863.6cm
3 3/4" = 165.4cm	35" = 889.0cm
3 7/8" = 171.8cm	36" = 914.4cm
4" = 101.6cm	37" = 939.8cm
4 1/8" = 108.0cm	38" = 965.2cm
4 1/4" = 114.4cm	39" = 990.6cm
4 3/8" = 120.8cm	40" = 1016.0cm
4 1/2" = 127.2cm	41" = 1041.4cm
4 5/8" = 133.6cm	42" = 1066.8cm
4 3/4" = 140.0cm	43" = 1092.2cm
4 7/8" = 146.4cm	44" = 1117.6cm
5" = 152.8cm	45" = 1143.0cm
5 1/8" = 159.2cm	46" = 1168.4cm
5 1/4" = 165.6cm	47" = 1193.8cm
5 3/8" = 172.0cm	48" = 1219.2cm
5 1/2" = 178.4cm	49" = 1244.6cm
5 5/8" = 184.8cm	50" = 1270.0cm
5 3/4" = 191.2cm	51" = 1295.4cm
5 7/8" = 197.6cm	52" = 1320.8cm
6" = 152.4cm	53" = 1346.2cm
6 1/8" = 159.2cm	54" = 1371.6cm
6 1/4" = 165.6cm	55" = 1397.0cm
6 3/8" = 172.0cm	56" = 1422.4cm
6 1/2" = 178.4cm	57" = 1447.8cm
6 5/8" = 184.8cm	58" = 1473.2cm
6 3/4" = 191.2cm	59" = 1498.6cm
6 7/8" = 197.6cm	60" = 1524.0cm

NOTE: All of the designs in Creative Woodwork & Crafts pattern sections are for personal use only. You may give away or sell the completed projects you make from them, but you are NOT permitted to make copies of the actual patterns themselves to sell, give away or otherwise distribute in any other form.



Turkey Beard Holder Intarsia
Full Size Pattern
from page 56



Wall Pocket Right Side

Wall Pocket Left Side

Wall Pocket Front

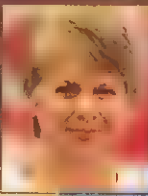
Wall Pocket Bottom

Cut along dashed line after applying pattern to wood



Screaming Eagle
Full Size Pattern

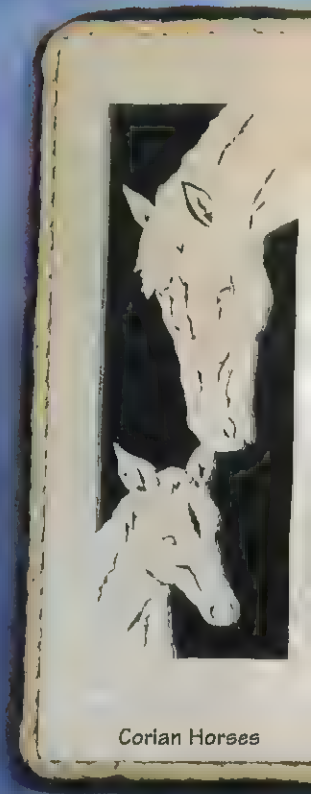
Screaming Eagle Frame



WIRE AND COLT: VAL

SUPPLIES

Wood, wood glue, one piece approximately 3' x 14'
 Tees, scroll saw with No. 3 (12.5 IP) blade, drill with a 1/2" bit
 Temporary-bond spray adhesive
 Sandpaper, assorted grits
 Leather or other backer material 11" x 14"
 Finish of choice



Corian Horses

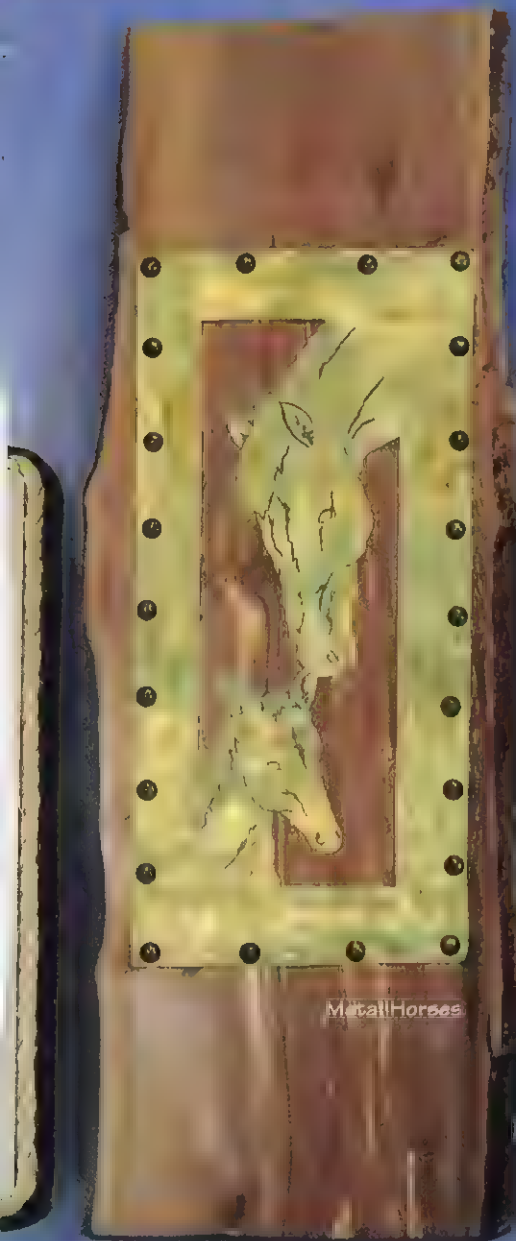
Introduction

After originally cutting this design from wood, I decided to experiment with several different applications of the same pattern. The supply list is for the main wood-cut piece, and directions are provided for the three variations.

INSTRUCTIONS

Using spray adhesive, attach the pattern to your piece of wood. Drill for all inside cuts and cut out. Sand as needed; then apply your finish of choice. Cut a piece of leather or other backer material of your choice, and attach to the back of the wood.

VARIATIONS ON A PATTERN



Metal Horses



Baltic Birch Horses

For Corian horses:

Use a No. 5 wood blade to cut the design from a piece of Corian countertop material. The color of the Corian can make a difference as to how it cuts, so you may need to experiment with some different pieces. An application of beeswax on the blade can aid in the cutting. When finished, apply green felt or other material of choice for a backer, and glue a length of rope around the outside of the Corian to frame it.

For metal horses:

Sandwich a piece of sheet brass, available at most craft stores, between two pieces of thin plywood. Attach the pattern to the wood, then cut through all layers using a No. 5 wood blade, which works well when cutting metal.

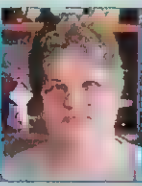
To color the metal, apply a brush-on or spray liquid patina, which causes a chemical reaction with the brass. Glue the cut metal piece to a wood backer board, and finish by outlining the piece with tapestry tacks.

For birch horses:

Cut the pattern from 1/4"-thick Baltic birch and insert in a frame.

Push yourself a little with your patterns. Step out of the box, color outside the lines, and watch yourself grow as an artist!

For questions concerning this project, send a SASE to: Marilyn Carmin, 4569 NE 78th Place, Portland, OR 97218.



PUG PUPPIES

by Billie (BJ) Holm



SUPPLIES

1/4" roundover bit
1/4" (for backer)
drill with assorted small bits; router and 1/4" roundover
router bit
Temporary-bond spray adhesive
Sandpaper, assorted grits
Rack cloth

Wacky glue
Golden oak stain
White paint
Pumpkin orange, white, and yellow
Paintbrushes
Clear finish
Sawtooth picture hanger

Introduction

The sweetness and curiosity of puppies always make me smile. I painted the puppies in this project so they would appear more lifelike. A little stain and thinned paint can make all the difference.

INSTRUCTIONS

Copy the pattern, and save the original for later use. Sand the wood smooth and wipe clean with a tack cloth. Spray the back of the pattern with a medium-light coat of the spray adhesive, wait a few minutes until the glue feels tacky, then adhere the pattern to the center of the wood.



1 Draw a 2"-wide oval around the entire perimeter of the pattern, and cut along the traced line.



2 Drill the pilot holes for the design. Do NOT drill the circles on the butterfly wings. They will be painted later. Make all the inside cuts using the No. 2 blade.

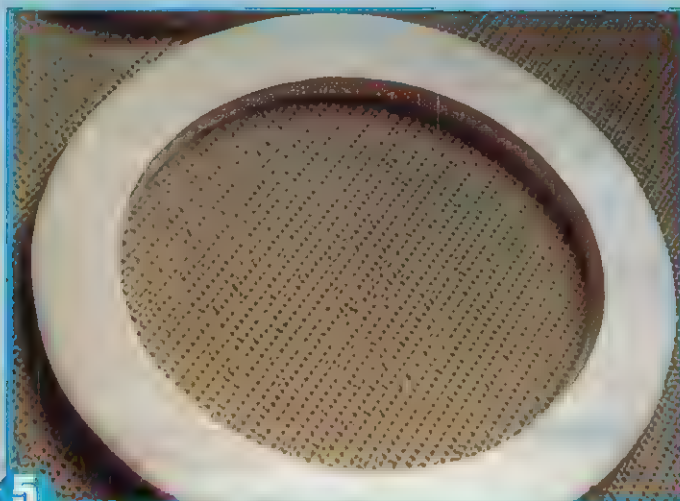


3 Tilt the table 4° degrees to the left. Using a No. 5 blade and cutting to the right, cut out the outer frame.



4 Push the center section back into place to check the fit. Adjust if necessary.

continued on page 46



5

Remove the center section from the frame. Sand the frame, slightly rounding the inner edge. Using a 1/4" roundover router bit, roundover the outside edge and sand it smooth. Tack to remove the dust. Stain the frame, wipe it dry, and set it aside to cure.



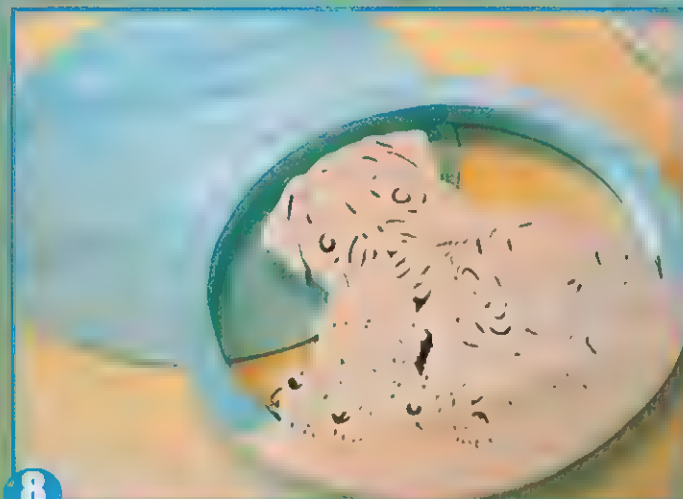
6

Trace the perimeter of the center section onto the plywood. Cut along the traced line to make the backer.



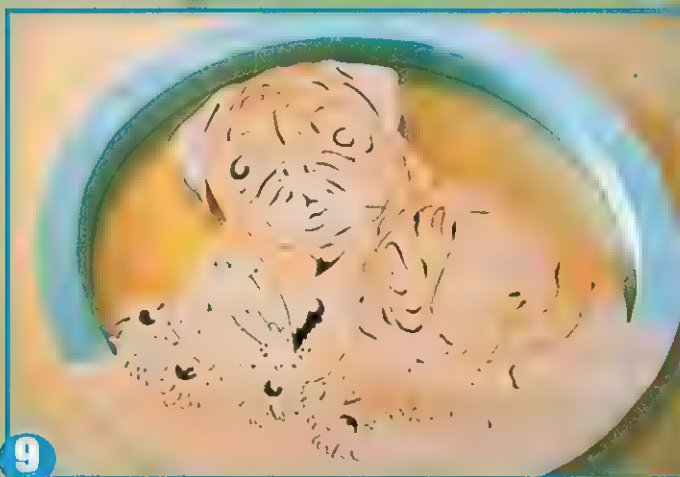
7

Paint the backer using white and aqua paint, creating the effect of a streaked sky. Set it aside to dry.



8

Paint the top and inner edge of the center section to match the backer.



9

Thin the dark beige paint with water. Apply a very light coat of paint to the puppies' heads and bodies, letting the wood show through.



10

Using thinned black paint, lightly paint the ears and eyes. Add more of the thinned black paint to deepen the color where needed. Paint the eyeballs dark black and dot them with white paint.



11

Paint the center of the butterfly wings first with thinned yellow paint, then with some thinned orange paint. Using black paint, paint the wing edges, the vein lines, and the body. Use white paint for the dots. Paint the flower petals using thinned white paint. Paint the flower centers, including the holes in the flower centers, using yellow paint. Using thinned green paint, paint the grass, adding more of the thinned green paint where needed to deepen the color. Let dry.



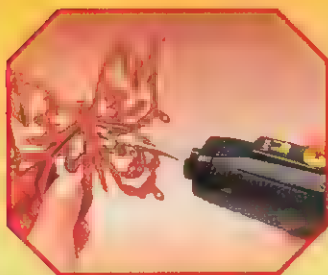
12

Apply a coat of clear finish to the backer, the center section, and the frame. Let dry. Insert the center section into the frame. Use tacky glue to glue the backer to the center section, and place a weight on it until the glue dries. Center and attach a sawtooth picture hanger to the top back of the center section, then push the center section toward the back of the frame until it locks into place.

For questions concerning this project, contact BJ at BJHolm51@yahoo.com or visit her live chat at www.wooders.com

END of SUMMER SALE!!!

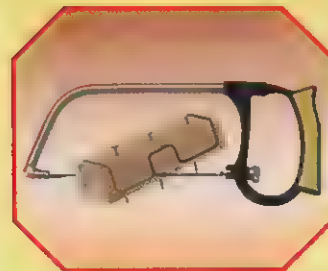
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We Believe That Quality Is In The Details





Chirping Chickadees Wall Pocket

designed by John Nelson, sawn and developed by John Polhemus



SUPPLIES

Wood, mahogany, — one piece 14" x 11 1/2" x 18" for chickadees and pocket parts, and one piece 14" x 11 1/2" x 12" for backer.
Tools: scroll saw and blades, till press w/ assorted till bits, small square, circle template or washer, and a small round nail.

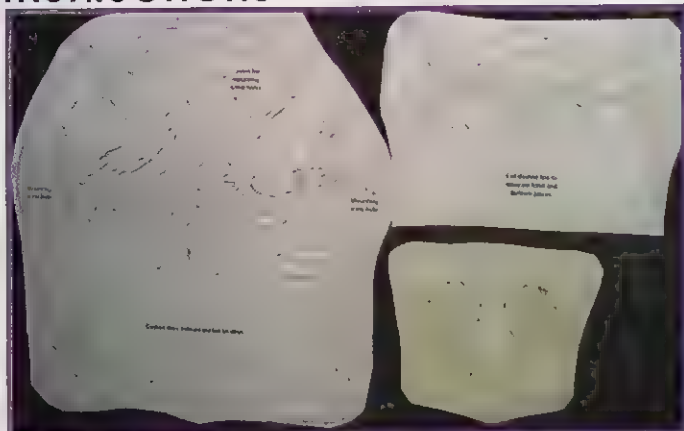
Temporary bond spray adhesive
Cyanoacrylate (CA) glue
sandpaper, assorted grits
Black Aqua Oil* or stain of choice
Mounting screws appropriate for wall mounting, two.
*Available from Cash Coatings (608) 222-2445

Introduction

This wall pocket designed by John Nelson could be a handy place to stash your watch, wallet, and keys at the end of the day. It's an excellent companion piece for his Doves Among the Leaves Hat Rack featured in the March, 2005 issue of *Creative Woodworks & Crafts*®.

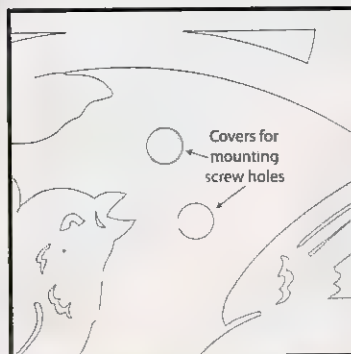
I chose to use mahogany for this project and apply black aqua oil to the surface of the backer, but you may choose a different type of wood for the backer, without applying any stain, for a different effect.

INSTRUCTIONS



Patterns applied for cutting.

Apply the patterns for the chickadees and pocket parts to the larger piece of mahogany so the grain of all the pieces runs from side to side. Whether to cut the exterior of the parts first or drill and make the interior cuts first is up to you. Separate the pieces for the sides, front, and bottom of the pocket by cutting along the dashed lines on the pattern. (DO NOT cut on the dashed-lined rectangles on the chickadees piece. Those lines are used for placement only.) Sand the back of the cut chickadees piece.



Circles on chickadees pattern for mounting hole covers.

There are two circles in one of the waste areas of the chickadees pattern. These will be covers for the mounting holes after the finished wall pocket is mounted to the wall. They will be bevel cut like the backer board, so set the piece with the two circles aside until the backer board is cut.



Drawing the pattern line for the backer board.

Finish sand the face of the backer board, then wipe on black aqua oil with a clean rag. When it is dry, center the chickadees piece on the backer board and glue in place. Make a pattern for the backer board by tracing around the chickadees piece using a circle template or a washer.



Cutting the backer board.

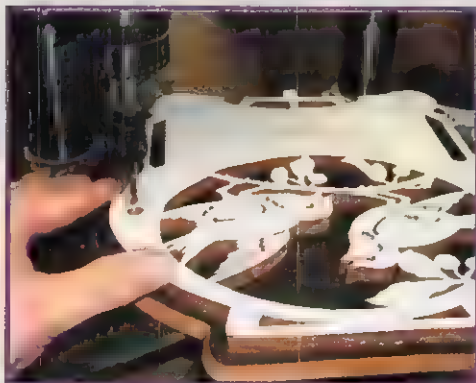
Tilt your saw table 20° and cut the backer board along the traced line, so the edge tapers outward from top to bottom. Because the cut edges of the backer board are not treated with black aqua oil, they will match the chickadees and pocket parts, while contrasting with the surface of the backer board.



Cutting the mounting hole covers.

With the saw table still angled, cut the circles for the mounting hole covers, again tapering the edge outward from top to bottom.

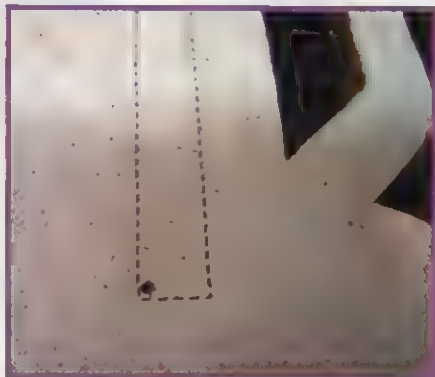
continued on page 50



Countersink holes for mounting screws.

Where indicated on the chickadees pattern, drill countersunk mounting holes for the heads of the mounting screws.

There are dashed-line rectangles on the chickadees pattern that indicate pocket placement. Use an awl, brad nail, or small drill bit to make a hole just inside the upper and lower inside corners of the rectangles. These holes will remain after the pattern is removed and the wood is finish sanded and will be used to align the sides of the pocket with the chickadees piece.



Make alignment holes.

Remove the patterns from all the pieces and finish sand them. When assembling the pocket, the face piece will not be glued to the side pieces. Rather, the tabs on each end of the front piece fit through the slots in the side pieces to hold it in place. Test fit those pieces before the pocket is assembled. If the tabs are too thick to fit the slots, sand the face of the pocket until they fit freely. Don't enlarge the slots in the side pieces to make the tabs fit because it will weaken the side pieces!



Align and glue on the left side pocket piece.

Apply CA glue to the back edge of the left side pocket piece. Position it on the chickadees piece so the upper and lower inside corners just cover the alignment holes. Use a square and hold the side piece in place while the glue sets.



Pocket parts held in place while marking position of bottom piece.

Insert the left tab of the front piece (remember, no glue!) of the pocket through the slot in the left side piece just glued on. Test fit the remaining pocket pieces, without gluing them in place. Position the right side piece by inserting the tab into the slot and covering the alignment holes. Put the bottom pocket piece in place, and check it with a square. Use a pencil to lightly mark the underside of the bottom piece where it comes in contact with the glued-on left side and chickadees piece. Set the front and right side pieces aside.



Gluing on the bottom piece of the pocket.

Apply CA glue to the left and back edges of the bottom piece; align them to the pencil marks and hold in place until the glue sets.

Apply CA glue to the right edge of the bottom piece and the back edge of the right-side piece where it attaches to the chickadees piece. Insert the right tab of the front piece through the slot in the right-side piece while aligning the side piece, the same way as the left side was done. Hold in place until the glue sets.

Apply the finish of your choice to the wall pocket and the mounting hole covers. Once they're dry and the wall pocket is mounted on the wall, the hole covers can be attached. Two very small dots of CA glue will do the job. The covers can be pried off with a sharp knife if needed in the future. Although double-sided tape, rubber cement, or spray glue can also be used to attach the hole covers, their bonds may weaken over time, causing the covers to fall off.

For questions concerning this project, send a SASE to: John Polhemus, 3000 Charleton Ct., Waldorf, MD 20602; email: fretsawyer@verizon.net



HELM'S WHEEL INTARSIA

by Robert T. Letvinchuck of Against The Grain Woodart™



Introduction

With a rope ladder overlay and button inlays, this piece is sure to sharpen your intarsia skills. Let's set sail on a journey that will guide you through the detailed process of creating this beautiful addition to your nautical collection. If you happen to fall overboard, send out an S.O.S. call to rob@againstthegrainwoodart.com, and I'll be happy to get you back on board!

INSTRUCTIONS

Note: For transferring patterns to wood throughout the project, use the following trace-and-transfer method. Place tracing paper over the pattern and trace your starting piece. Place the tracing paper onto chosen stock, noting grain direction. Slide transfer paper under the tracing paper, and transfer the pattern piece to the stock. Cut out the pattern piece. Trace next piece, using the edge of the previously cut piece as a template.

continued on page 52



SUPPLIES

Wood: one piece medium-colored wood, 1 1/8" x 8" x 22" (for wheel); one piece dark wood, 1 1/8" x 8" x 22" (for handles); one piece 1 1/2" x 8" x 8" (for ship body and mast); one piece 1 1/2" x 4" x 8" (for wheel overlay and rope ladder); paper (for other light wood); one piece 1/2" x 4" x 8" (for sails and portholes); one piece 1/4" x 1 1/4" x 3 1/2" (for rope ladder overlay); black walnut (for pine knot wood); one piece 1 1/4" x 2" x 2" (for rings on rope ladder overlay); blue pine (or other medium-light wood); one piece 3/4" x 1 1/4" x 1 1/4" (for water) (or other medium-colored wood); one piece 1/4" x 2" x 1 1/4" (for plugs and rope ladder overlay); pine (or other medium-light, fine-grained wood); one piece 1 1/2" x 1 1/2" x 3" (for rope ladder on ship); Santos mahogany (or other medium-colored wood); one piece 1 1/4" x 2" x 3" (for flags).

Tools: scroll saw, with assorted blades; up to 1/2" and 3/8" plug cutter; router with 1/4" and 1/2" roundover bits; spindle or drill-mounted drum sander; plane.

Finishing: glue.

Transfer: paper.

Wax: paper.

Sanding: paper.

Wood: oil.

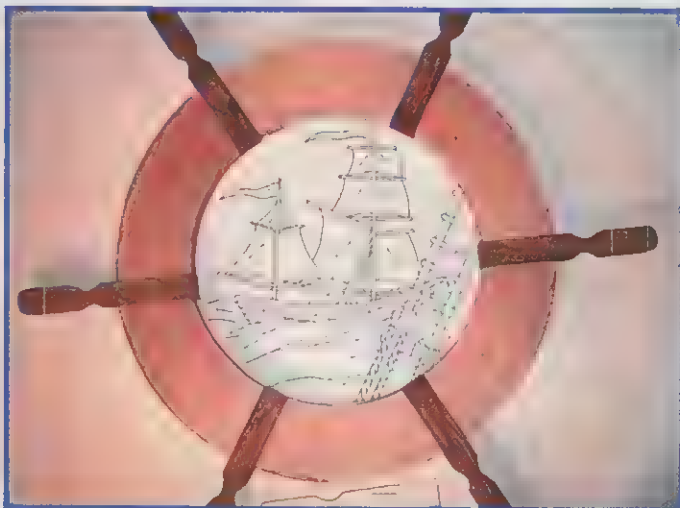
Tape.

Finish: oil.

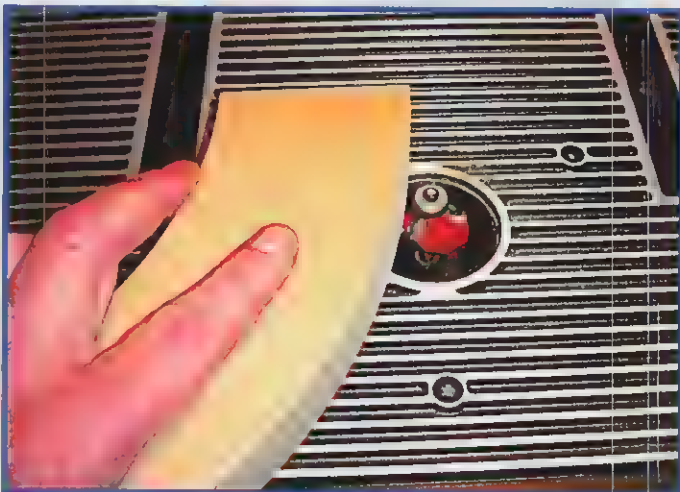
Boys: 1/2" x 1/2" x 1/2".



Place the handles on the pattern and number them. Start with the top right and go clockwise.



Starting with the top right, cut, square up, and number the thicker wheel sections between the handles.

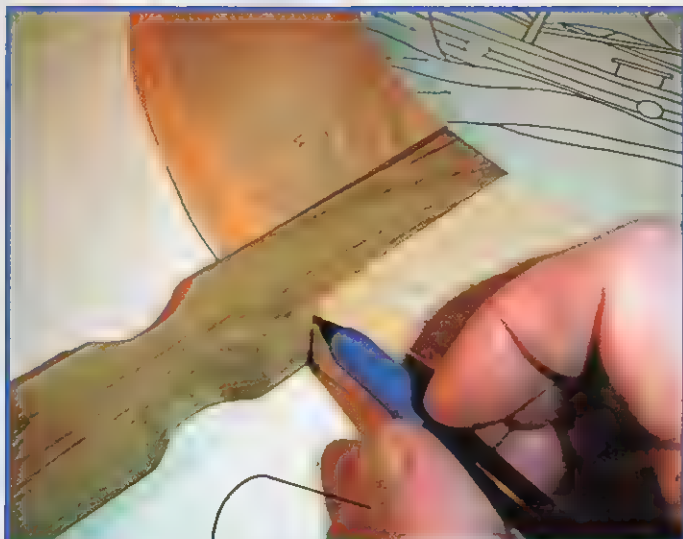


Use a router with a 1/2" roundover bit to round the outside edge of each wheel section.

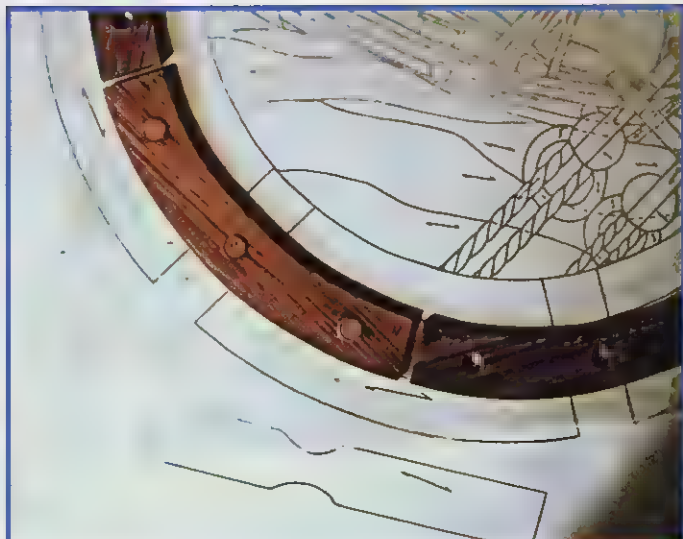
Start with the handles. Trace, transfer, and cut one handle. Use the handle as a template to trace the other five handles. Keep the inside ends square (you will round them out after frame is complete).



Use a spindle or drill-mounted drum sander to square up the edges, making sure they are at 90°.

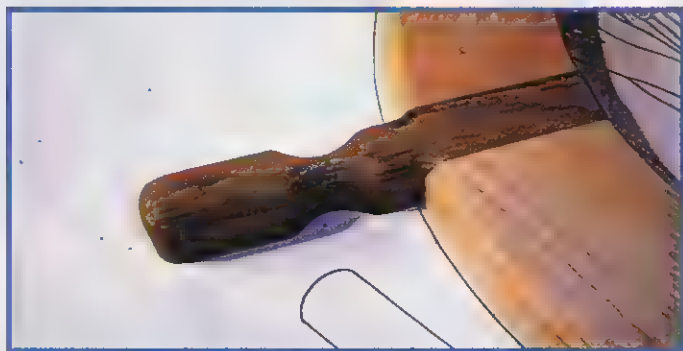


Re-assemble the wheel. Trace the roundover from the wheel frame onto the handles. This line shows where to stop sanding to match the roundover of the wheel.



Cut 18 plugs using a 3/8" plug cutter (found at most local hardware stores). On the wax paper, glue the plugs into the holes and let dry.

Assemble the overlays on wax paper by edge gluing. Let dry.



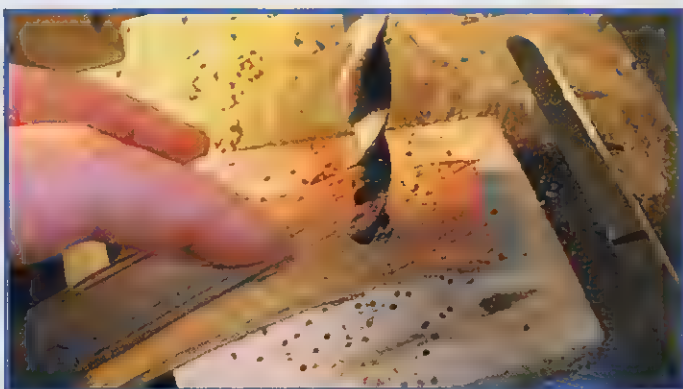
With the same 1/2" roundover router bit, roundover the handles up to your traced line, then finish sand by hand to match the contour of the wheel.

Finish sand all pieces cut so far. Lay down wax paper over the pattern so you will be able to see the pattern through the wax paper. Edge glue the wheel back together by applying a small bead of glue to the lower edges of the pieces and pressing together, making sure everything is lined up. (Too much glue will cause squeeze-out that could ruin the finished piece.) Allow the glue to dry thoroughly.

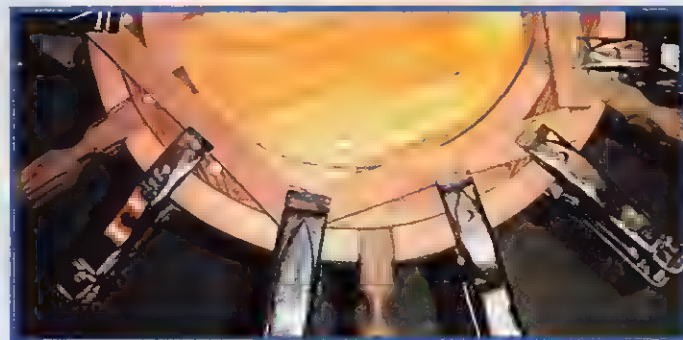


Sand the inside of the wheel and the inner and outer edges of the wheel overlay to create even-flowing circles.

Using the router with the 1/4" roundover bit, roundover the inner edge of the wheel. Rout the edges of the overlay also using a 1/4" roundover bit. Finish sand the wheel and the wheel overlay, removing all glue residue.



Cut and number the overlay sections for the wheel, making sure to mark the buttonholes. Bore the holes using a 3/8" drill bit, being sure to place a scrap piece of wood underneath to prevent breakout.



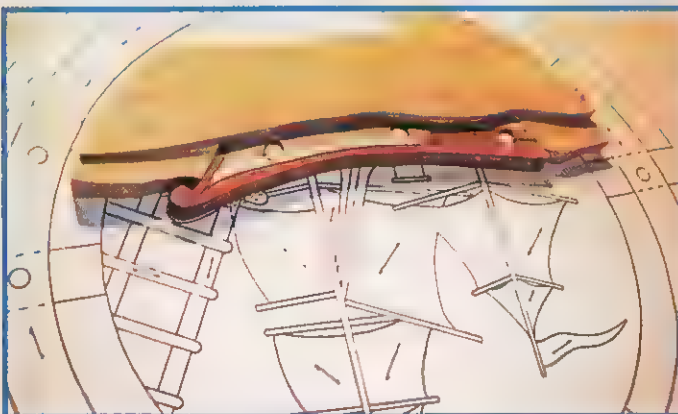
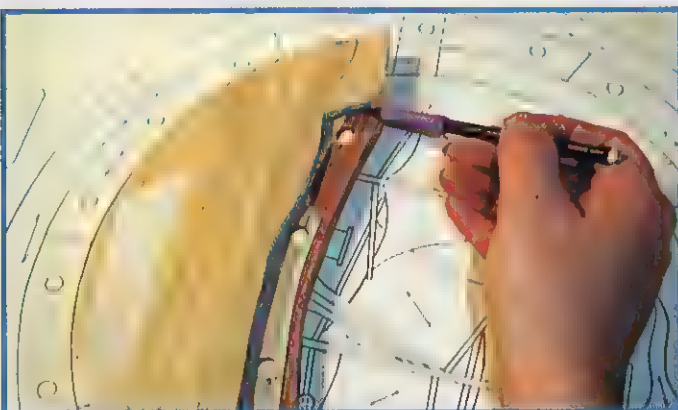
Apply a small bead of glue to the bottom side of the wheel overlay and center it onto the wheel. It is a good idea to let the glue set for a short time before clamping so the overlay doesn't move around while clamping. Lay scrap pieces of wood on the overlay, and clamp the overlay to the wheel.

continued on page 54





Cut the rope ladder overlay next. The dotted lines on the pattern represent the pieces underneath the overlay. You should ignore them at this point. Make sure to cut all edges that touch the inside of the wheel about 1/4" longer than the pattern. (The excess will be cut later.) Finish sand the entire rope ladder overlay and edge glue it on wax paper. Set aside and let dry.



Ignoring the rope ladder overlay and using the dotted lines now, cut the water and ship body, making sure you add the extra 1/4" on all pieces that touch the inside of the wheel, as when making the rope ladder overlay. Cut the ship body as one piece, first marking the portholes and board seams. Bore the portholes and cut the plugs as you did for the buttonholes on the wheel overlay, then cut the board seams and insert the portholes. To give the water depth, use a pencil to mark the two pieces on the left and right sides of the ship. Sand the two pieces down just past the mark.



Tape the water and ship together and position them on the pattern. Place the wheel onto the assembled pieces and place a shim at the opposite end of the wheel. Trace the cut line onto the water pieces.



Cut the pieces you just marked and fit them into the wheel, making any needed adjustments at this point.



Move the water and ship section off the pattern. Position the rope ladder overlay in place. Mark the cut line in the same manner as you did for the water.

Cut and fit the rope ladder overlay, and then set it off to the side. Contour and sand the water and ship. Place wax paper onto pattern and edge glue the water and ship to the wheel. Let dry.





Cut and fit all the masts, sails, and flags. I preferred to start from the right and work my way to the left, sanding and gluing as I went. Because this piece is intricate, you may need to make minor adjustments as you go.



Edge glue the rope ladder overlay to the water and to the wheel, using a shim to keep it level. Allow to dry.

When the project is completely dry, turn the wheel over. Rub glue into all seams and let dry. Sand the back smooth. Turn the piece over and finish sand the front by hand. Apply two coats of finish to the back, and let dry. Apply three coats of finish to the front with a light sanding between coats. Let dry. Attach a hanger, and enjoy your work of art. Happy cutting!

For questions concerning this project, or to receive a free catalog of more patterns by Robert T. Letvinchuck, write to: Against The Grain WoodArt, 382 E. 1st St., Fond du Lac, WI; or, visit us on line at: www.againstthegrainwoodart.com



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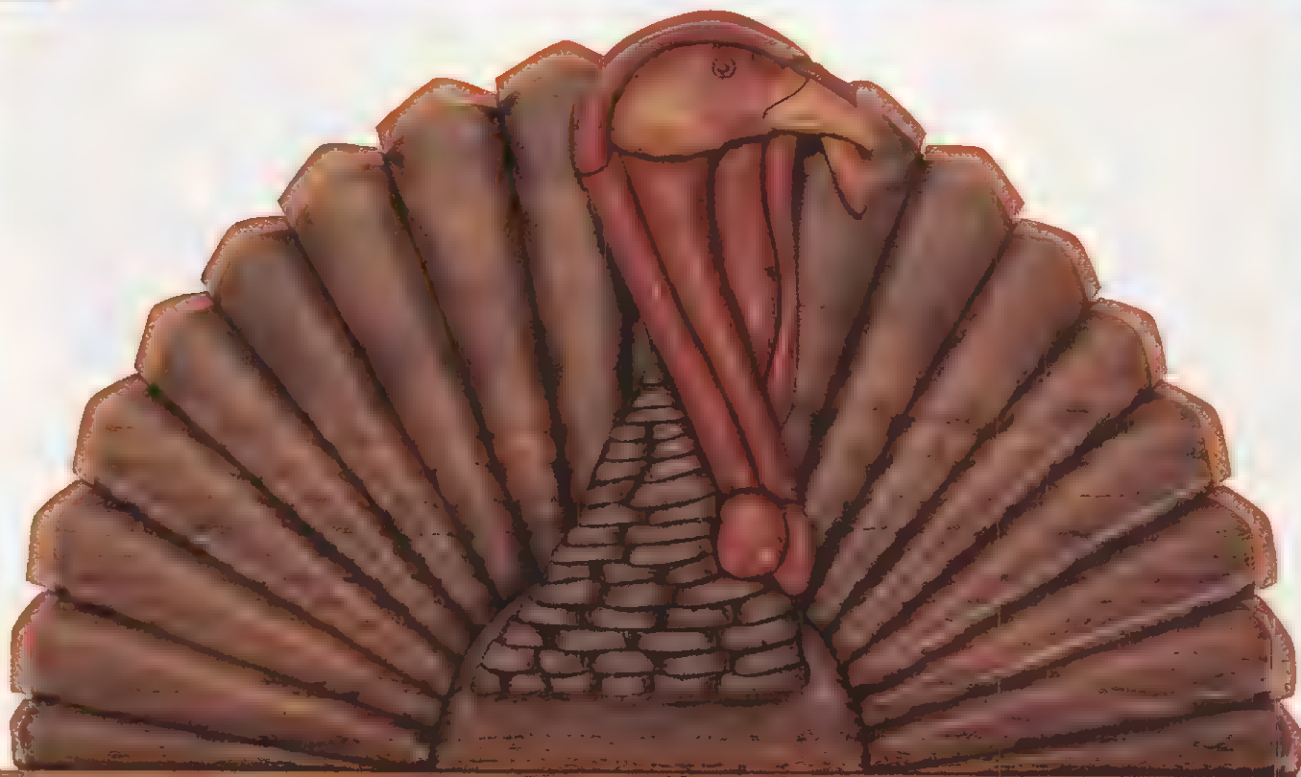


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Turkey Beard Holder Intarsia

by Darin Liles



Introduction

Around two years ago, a good friend of mine, Danny Griggs, invited me to go turkey hunting. I'd never been turkey hunting before and figured, "Why not?" Well, I didn't get a turkey, but I did find out lots of interesting things. While white-tail buck hunters are after the "Big Rack," turkey hunters are after the "beard." The beard is located on the upper chest area of the male, and the longer the beard, the better the trophy.

They also prize the spears on the feet.

After hunting, Danny showed me all of his turkey beards, which were hanging here and there on nails. That was when I came up with the idea of creating a turkey beard holder. (By the way, the turkey beards in the photo are Danny's, not mine!)

SUPPLIES

Wood: oak—one piece $3/4"$ x $22"$ x $4"$ (for base), one piece $1/2"$ x $5"$ x $5"$ (for ruffled neck area); mahogany—one piece $3/4"$ x $3"$ x $5"$ (for inlay of footprints in base); purple heart—one piece $1/2"$ x $2"$ x $2"$ (for inlay of footprints in base); maple—one piece $1/4"$ x $22"$ x $15"$ (for backer board)

Tools: scroll saw with No. 3 Flying Dutchman blades; drill

tracing paper
Carbon paper
Sharp pencil
Ink pen
Wood glue
Super glue
USED shotgun shells
3mm orange glass eye
Clear finish of choice
Hanger

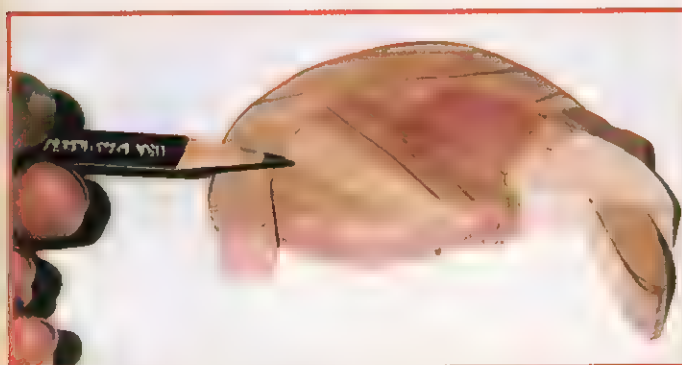
www.wildlifeintarsia.com

INSTRUCTIONS

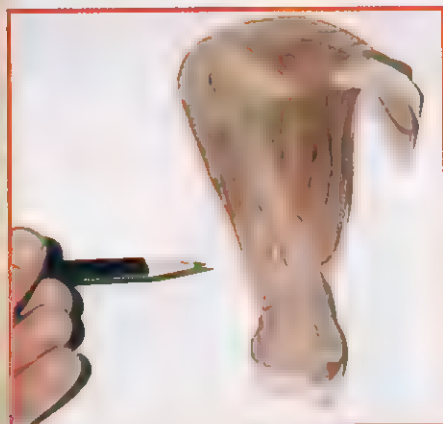
Trace the patterns onto tracing paper. This will allow you to choose your grain direction.



With the carbon paper, trace the face onto the wood and cut it out. The darker area around the eyes is purple heart.

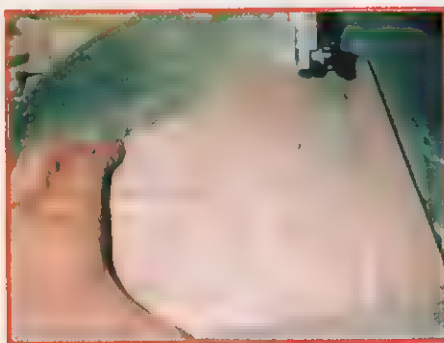


Cut and fit the top of the head, the beak, and the bill, making sure there is a good 90° fit.



Cut out the throat area and fit into place.

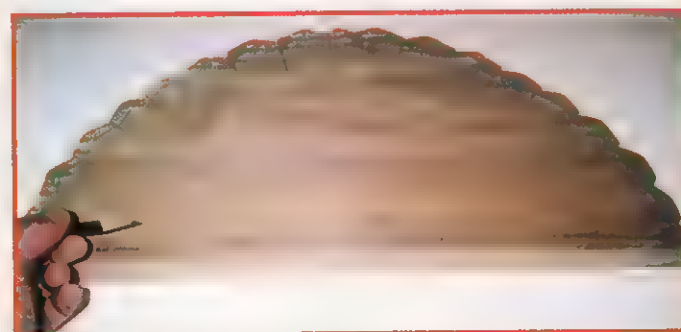
Cut the neck area out of walnut.



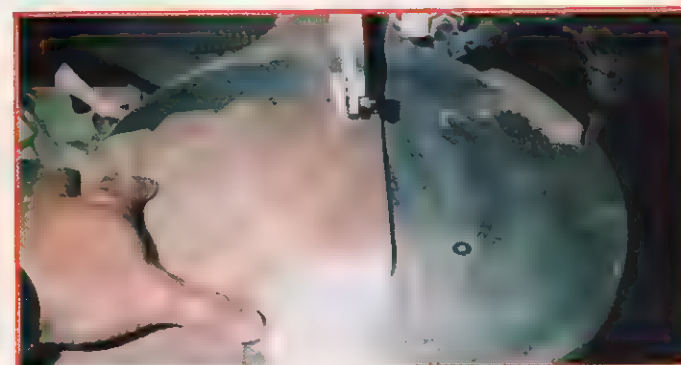
Start rounding the neck pieces. The "ruffled" look on the neck is achieved by sanding the sides and top of each piece, while leaving the bottom with a straight edge.



Dip the center of the throat section inward, to show more detail. Drill an 8mm hole in the head area to accommodate the eye. After all rounding and sanding to the head, throat, and neck section is done, glue the pieces together, clamp, and set aside.

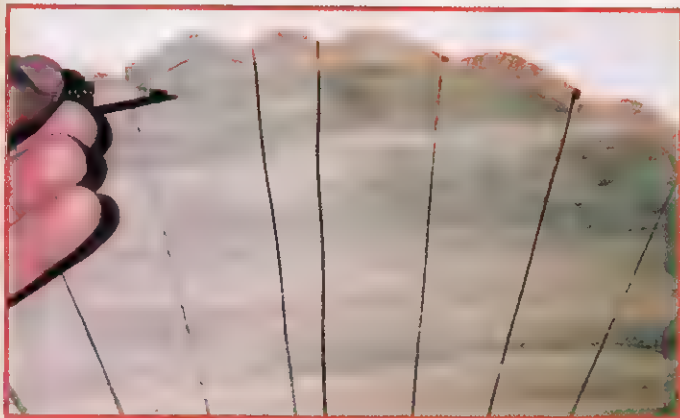


With the grain running the length of the pattern, trace the tail feathers onto the walnut. Align the bottom of the feathers to the straight edge of the board, so there will be a good, straight fit with the oak board.



When cutting out the tail feathers, start by cutting out the rounded body area first, then cut out the individual feathers.

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Tip each of the feathers with mahogany. I found it was easiest to glue each tip into place as I cut it. First, make sure there is a good fit. Then, attach the mahogany tip using wood glue, and add a small drop of super glue to serve as a "clamp" until the wood glue has dried.



Cut the USED shotgun shells at 1-1/2" from the brass end. Lightly sand the cut end to fit the hole. Insert the shells into the holes, using a small amount of glue to secure. Glue the combination head, throat, and neck piece into place. Let dry.



Start rounding the feathers using the oscillating spindle sander.



Place the entire piece on 1/4"-thick plywood and trace the outer edge. Cut along the traced line at a 45° angle, and glue the plywood into place.

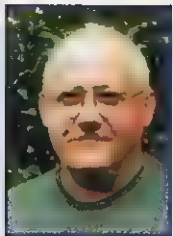


Trace and cut out the oak for the base. Cut out the footprints and fit with yellow heart. For the shell holes, use a 3/4" forstner bit to drill 1/2" deep into the oak base where indicated on the pattern. Sand the oak base and lightly round the edges. Glue the tail feathers and body to the oak base.



Apply a clear coat of your finish of choice. Glue the glass eye into place. Let dry, then apply a hanger to the back. Hang and enjoy your turkey beard holder (and good luck filling it up!).

For questions concerning this project, send a SASE to: Darin Liles, 252 Sam St., Shirley, AR 72153; website: www.darinswoodworks.com



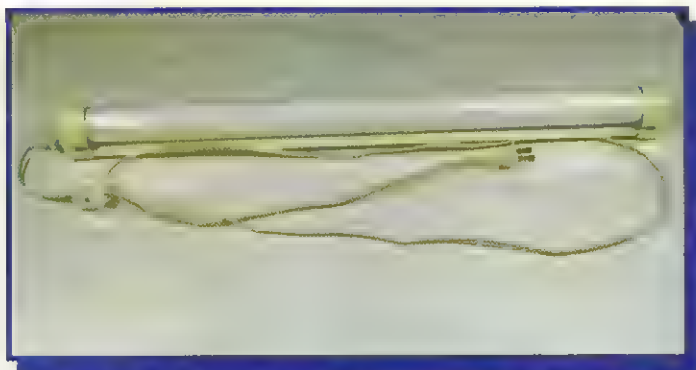
Intarsia Talk

Shop-Made Intarsia Accessories

By Robert J. Hlavacek, Sr., of Wildlife Intarsia Designs

Introduction

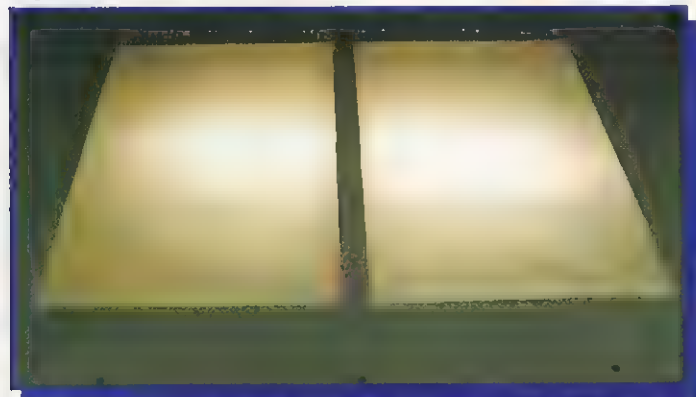
A helpful addition to your arsenal of intarsia tools is a light source that will shed some light under your project. As you cut and fit the pieces, there will be sections along the joints that will bind, causing gaps between the pieces. Working on an illuminated surface helps you quickly spot these troublesome areas. The lighted surface can be made either as a light table workstation or as a light box, and directions are provided for constructing both.



In both cases, the illumination is supplied by a General Electric Brite Stik™ (available at ACE Hardware stores). The Brite Stik is a pre-wired fluorescent light fixture complete with a line switch installed, so you won't need any knowledge of electrical wiring. Just slide it under the light table or box, plug it in, and turn it on.

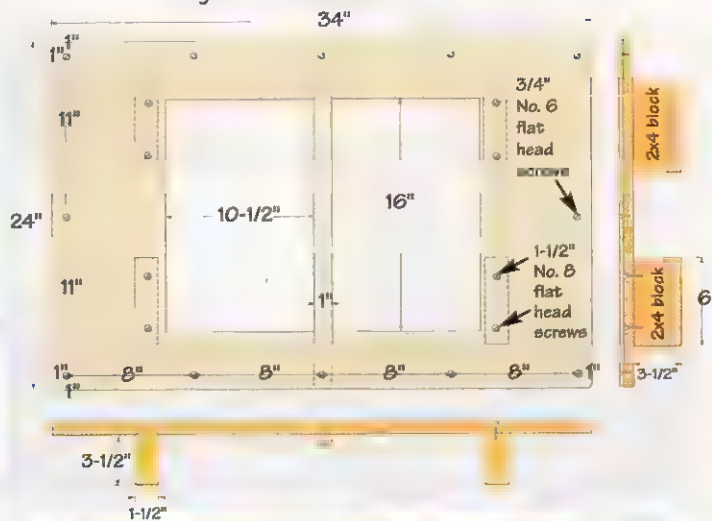
Any problem edges on your intarsia project that do come to light can be eliminated by sanding the edges using the auxiliary drill press table, and I have provided guidelines for making one of your own. Sanding always creates dust. Three methods of dust control I use are presented at the end of this article. Although not 100% efficient, they do help quite a bit.

Light table workstation

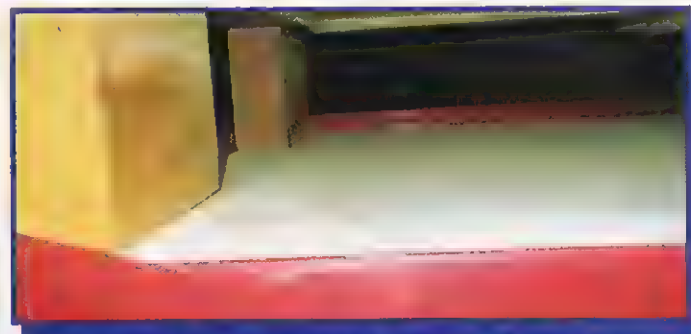


If you need more storage space in your shop, you may want to build a light table workstation. This version has a few changes from the one that appeared in the August, 1997 issue of *Creative Woodworks & Crafts*®.

Light Table Workstation Plan



I made this light table to fit on the top of a mechanic's metal tool cabinet. The five drawers provide ample storage for C-clamps, sanding sleeves, sandpaper, and anything else you want to keep handy while creating your intarsia masterpiece. The cabinet is equipped with casters, so it can easily be moved if necessary.



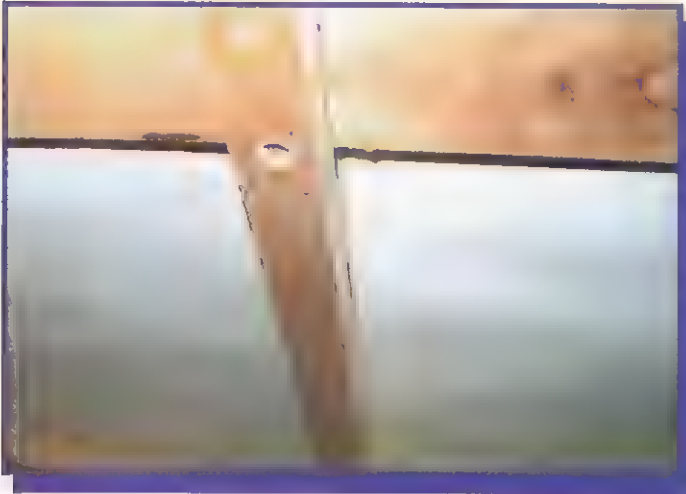
The top of my cabinet measures 26" x 18" and has a 3/4"-high edge on three sides and part of the front. Four 6"-long pieces of 2 x 4 are used to elevate the work surface. Place one block in each corner of the cabinet top and attach the plywood top to them using 1-1/2" No. 8 flathead screws, counter sunk flush or slightly below the surface. As you can see, the top of the tool cabinet should be painted white, or have a sheet of white paper

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continued from page 59

on it, to better reflect the light. When completed, the light table sits on the tool cabinet. It is not fastened to it.

As shown in the illustration, the dimensions of the work surface measure 34" x 24", and I made it out of a piece of 3/4"-thick birch plywood. Round the corners, because they hurt if you bump into them! A jigsaw was used to cut two light windows, each measuring 10-1/2" x 16". A 1"-wide strip divides the windows; this is to better support the 1/8"- to 1/4"-thick acrylic sheet so it doesn't sag.

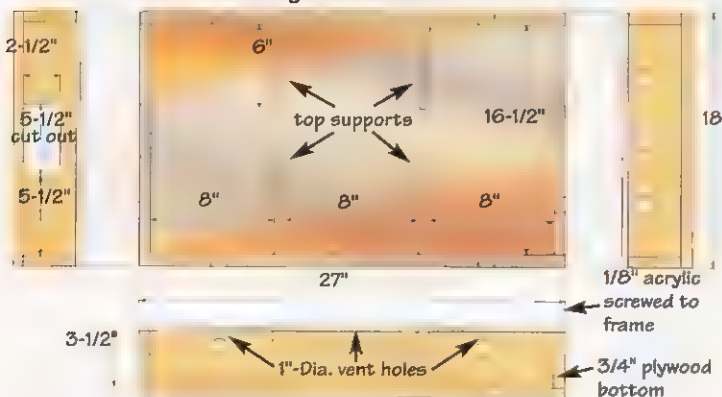


To provide additional support, a 1"-wide x 3/4"-thick strip of plywood was screwed and glued beneath the center divider. **Note:** Whether constructing the light table or light box, it is important to make sure the top is flat. If the acrylic surface sags or bows upward, it will be difficult, if not impossible, to achieve tight joints in your projects. Covering the entire top with acrylic provides a smooth surface on which to work.

If the acrylic sheet is larger than the work surface, it can be cut with a jigsaw and fine blade after it has been screwed to the plywood top. Because I couldn't find white acrylic large enough to cover the work surface, I purchased a clear piece from the hardware store. A sheet of white paper was placed beneath the acrylic to diffuse the light. The acrylic was then screwed in place with 3/4" No. 6 flathead screws which had been counter sunk, leaving the screw heads flush with, or slightly below, the surface. **Note:** Handle the acrylic sheet carefully because the edges may be very sharp (as the new bandage on my finger will attest to). Sand the edges smooth, either by hand or with a finish sander.

I've found this light table to be an adequate size for the projects I've made. However, you may want to adjust the size to better suit your needs.

Light Box Plan



Light box

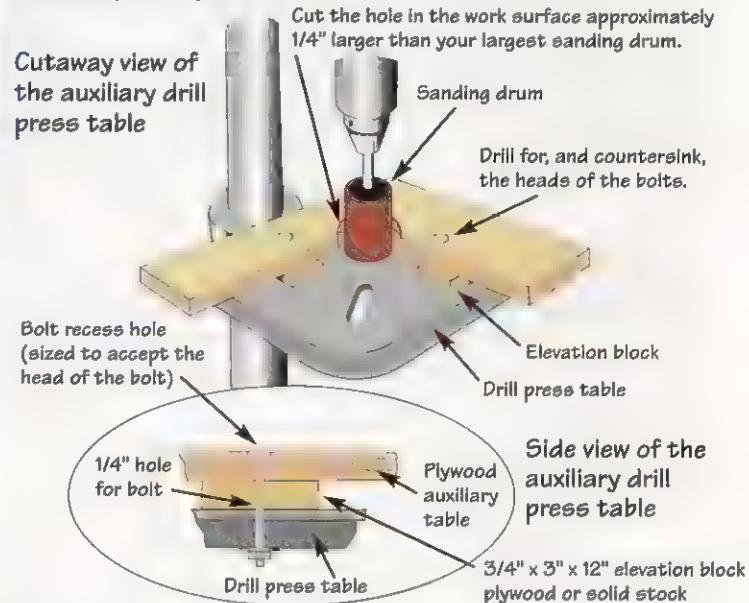
If you don't need the additional storage space provided by the light table workstation, a simple light box will work just fine. For minimal cutting, the light box in the plan shown was made using two 6'-long pine 1 x 4s (actual wood size is 3/4" x 3-1/2"). The bottom was constructed from 3/4"-thick plywood.

Cut the material to size and bore or cut vent holes as shown in the plan. Assemble the frame with carpenter's glue and 1-1/2" No. 8 flathead wood screws. Attach the box frame to the plywood bottom. Add the four top supports which will prevent the acrylic from sagging in the center.

Paint the inside of the box white to reflect the light. When dry, place the 1/8"- to 1/4"-thick x 27" x 18" acrylic sheet on top, and lay a straightedge across the top to make sure it is flat. A little sanding or shimming may be necessary to achieve this. If you are using clear acrylic, place a sheet of white paper beneath it to diffuse the light. Bore and countersink holes about every six inches for 3/4" No. 6 flathead screws and attach the acrylic. Be sure the screw heads are flush with, or slightly below, the surface. Sand the edges and corners of the acrylic sheet, as they may be quite sharp.

Slide the Brite Stik in the opening cut in the end of the box, and shed some light under your next intarsia project.

Auxiliary drill press table



For edge sanding intarsia project parts, I use the drill press 95% of the time. I find I can change drum sizes much faster than with the oscillating spindle sander. A good size for an auxiliary table is 20" x 16". Fastening the auxiliary table to your drill press will vary with the design of your machine; therefore, dimensions for drilling mounting holes are not indicated on the illustration.

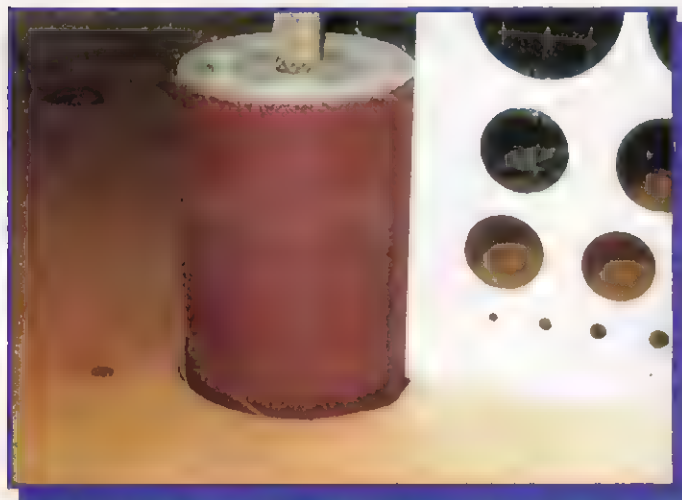
Begin by selecting a 3/4"-thick piece of flat, smooth plywood, like birch, measuring 20" x 16". Position it on the work surface of the drill press table. Hold it in place and trace the outline of all cutout areas of the drill press table to the bottom of the plywood. This will provide the proper location of the mounting holes and the hole to accept the sanding drums.

In the middle of the outermost corners of the drill press table cutouts, bore a 1/16" hole through the plywood. Flip the plywood over. Using a forstner or brad point bit, bore a hole in each corner, just deep enough to recess the bolt heads either flush or slightly below the surface of the auxiliary tabletop. The 1/16" holes are the location points. In the center of each recess, bore a 1/4"-Dia. hole through the plywood and 3/4" x 3" x 12" elevation blocks for mounting to the drill press table.

Using four 1/4" x 3" carriage bolts with nuts and washers, fasten the plywood to the drill press table, after first placing a

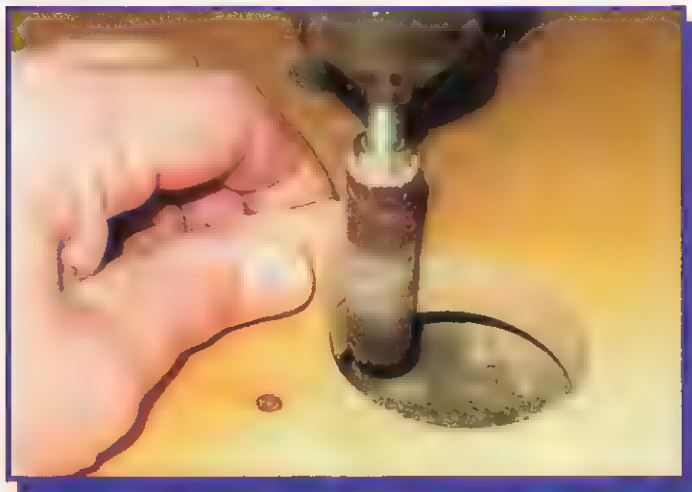
piece of 3/4" scrap wood in the center to prevent tear-out for when you use a hole saw to make the cutout for the sanding drum. I used an adjustable hole saw to cut the hole in the auxiliary table, making it about 1/4" larger than the largest sanding drum I planned on employing. Because I use a 2"-Dia. drum, the hole was cut 2-1/4" in diameter. (You may also cut the hole with your scroll saw if you don't have a hole saw.)

Remove the auxiliary table from the drill press, discard the scrap piece, and round the corners with a jigsaw. Sand the top and edges smooth and apply two coats of varnish to the sides and edges.



Reassemble the auxiliary table on the drill press and tighten the bolts. Insert a large sanding drum in the chuck and use a 90° angle or square to make sure the drum is perpendicular to the table. If the angle is incorrect, loosen the bolts and place shims under the bolts until the drum and table are perpendicular. This is very important to achieve accurate edge sanding.

Using your auxiliary drill press table

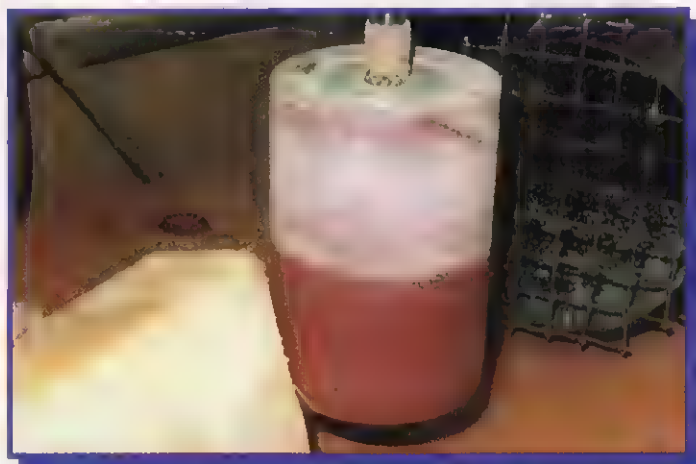


When using a sanding drum of a smaller diameter than the hole in the auxiliary table, either swing the drill press head or the table in order to position the sanding drum close to the edge of the tabletop. This will prevent smaller pieces from tipping into the hole.

Any time you use your drill press for sanding, the selection of the proper grit sleeve is a must. Applying more pressure against the sanding drum will not do the same job as a coarser grit sleeve. Excessive pressure only ruins your sanding drums, burns the edge, and puts unnecessary strain on your machine.



Sawdust-packed sleeves should be cleaned to extend the life of your sanding sleeves.



A crepe rubber cleaning stick is a very useful tool, and I highly recommend having one in your tool supply. Just lightly press the cleaning stick against the spinning drum, and a sawdust-packed sleeve will be as good as new in only a few seconds.

Basic dust collection and safety

Now that you've found you really enjoy making intarsia projects, you've also discovered that the sanding required to fit and contour the pieces of your project will create sawdust . . . *lots* of it. Inhaling sawdust is *not* a good way to keep your shop clean! How do we keep it under control? Here are a few tips.

This set-up is the one I used for several years. It did a pretty good job of drawing away and capturing dust, and it wasn't very expensive. It consisted of an old 24" x 24" household fan, to which I attached three 20" x 25" fiberglass furnace filters. Because the fan was wider than the filters, I



continued on page 62

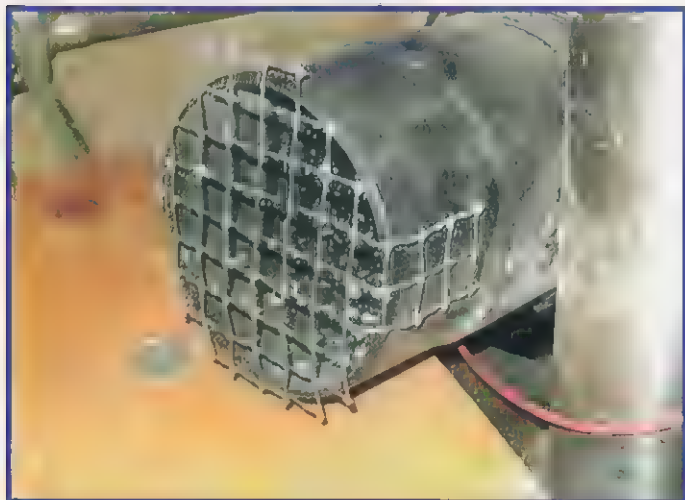
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attached corrugated cardboard to the sides with duct tape. A plywood shelf was screwed to the bottom of the fan, then the filters were held in place with a bungee cord.

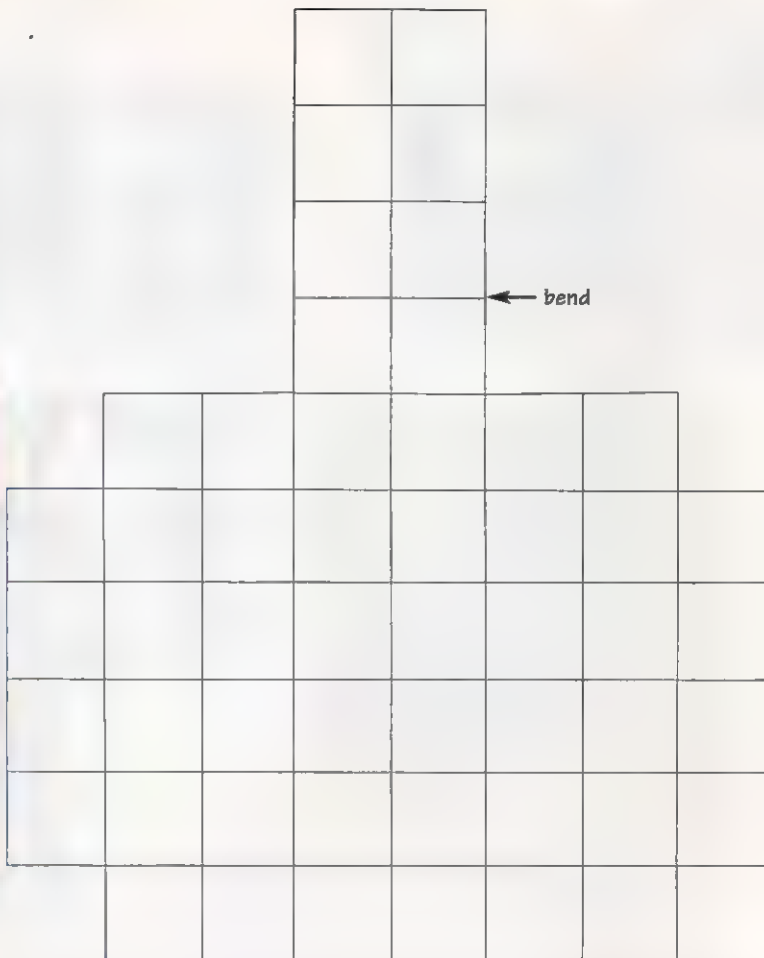
Use the workshop vacuum to remove the accumulation of dust that builds up on the filters. When doing a lot of sanding, the filters should be vacuumed every hour or so. If a lot of sawdust is allowed to accumulate on the filters, it will restrict airflow, which defeats the purpose of the fan drawing the dust away from you and may result in the fan motor overheating. The filters should be replaced regularly depending upon use.



A dust collection system with a 4" intake hose, positioned as close as practical to the sanding drum, is also an efficient arrangement for edge sanding and contouring.

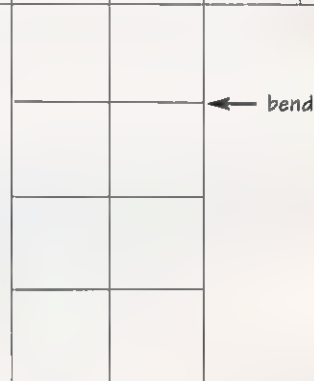


I used a piece of wire to hold the intake hose to the drill press column near the sanding drum. If you decide to use a system like this, I highly recommend taking the time to make a guard for the end of the intake hose. Here's why. When the dust collector was delivered, I was anxious to try it out. The hose was connected to the drill press as described above, and the machine was turned on. I grabbed a piece of the project I was contouring and started sanding it . . . for about 30 seconds. I lost my grip on the piece, and it shot down the intake hose like a bullet hitting a bull's-eye, dead center, making the kind of noise you don't like to hear coming out of a new tool. Figuring the impeller was wrecked, I shut it off, unplugged it, and took it apart. Well, the impeller was fine, but my perfectly fitting intarsia part was mutilated, having several chunks missing from it. My next project was making a guard for the end of the hose.



Pattern for 4"-Dia.
intake hose

Scale: 1 box = 1/2"



A piece of 1/2" mesh hardware cloth was cut as shown. The long ends were bent over to grip the end of the hose with no need for additional fasteners. Voila! No more eaten intarsia parts!

side view



The last piece of equipment I use in the shop is a high-efficiency air filtration system. This machine filters the air, collecting the airborne microscopic dust floating around the room. The manufacturer claims it removes 99% of the particles in the air that are 5 microns or larger in size, and 80% of the particles as small as 1 micron in size. One micron equals one millionth of a meter. Although it works most efficiently when suspended overhead, I have mine sitting on a table because of the low ceiling.



In addition to the equipment mentioned, wearing a dust mask is advisable while sanding your projects. Some species of wood are toxic, and others may create allergic reactions in some individuals.

Finally, use safety glasses or goggles to protect your vision and ear protection when operating noisy machinery, to provide full protection for yourself.

Send your intarsia questions to Bob at: www.cob@wildlifeintarsiadesign.com or call: 708-788-6455.

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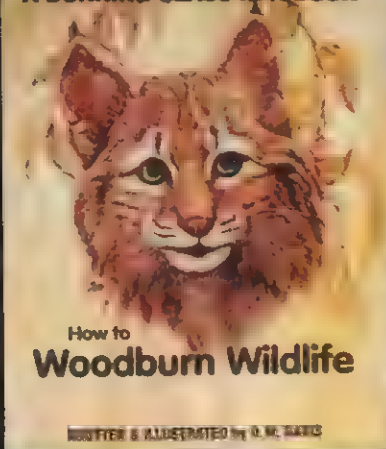
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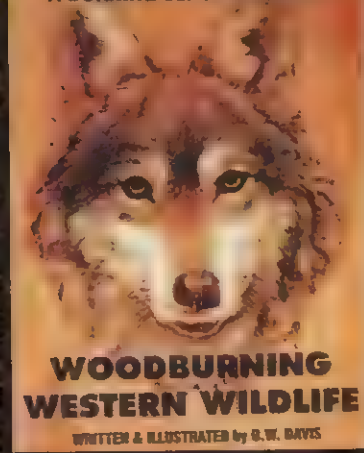
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WOODBURNING FOR COLOR!

Finished and colored burn



This red-tail hawk was gracious enough to pose for me as I took a number of photographs, with hopes that one would be good enough to be the basis of a project. Well, I was not disappointed. All of the photos were good, and I selected this one. That was the easy part! For the next step, the photo just needs to be enlarged to the desired size on a copy machine, then sketched or traced onto the wood (also an easy part).

The main thing to remember when woodburning the hawk is that, just like with the bobcat featured in the April issue, there are no straight lines. This entire hawk design is basically a collection of curved lines. Focus on developing a light touch with the woodburning tool and adjust the amount of heat you use on the tip so you are burning for color, not creating charcoal. You can always go back over a line to darken it, but it is nearly impossible to lighten it. Some folks have asked me, "Why don't you mention the setting you are using on your dial?" I choose not to mention the setting mainly because no two pieces of wood take the same temperature setting to get the same detail, and there can be variations between tools. On top of that, I am constantly making fine adjustments to the temperature settings, and it would drive you a little crazy and take up a lot more room in the article if I included every adjustment. So just look at the photos and make a bunch of test burns on some scrap wood until you get the hang of getting the shades that please you.

Basic burn

Red-Tail Hawk and the Secrets of Feathering



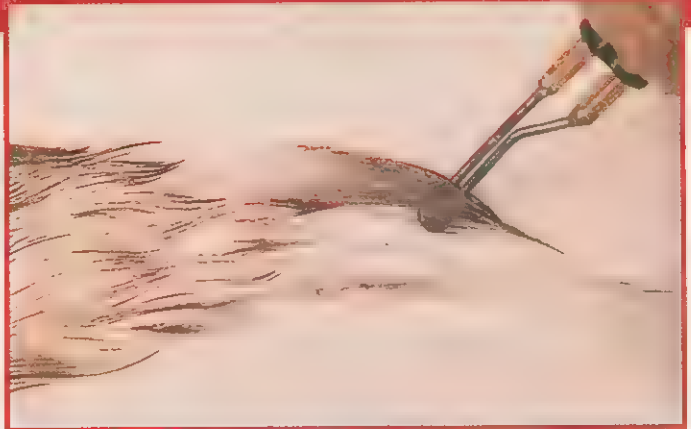
I refer to both the photograph and the enlarged copied version the whole time I am working on the project. The enlarged version allows me to see just what type of feather there is on the part of the body on which I am working.



I look at just how fine the detail is, which way it sweeps or turns, and how dense it is. Then, with a low temperature setting, I lightly burn in the pattern with my trusty "J" hand-piece on my Colwood Detailer. It isn't really that difficult.



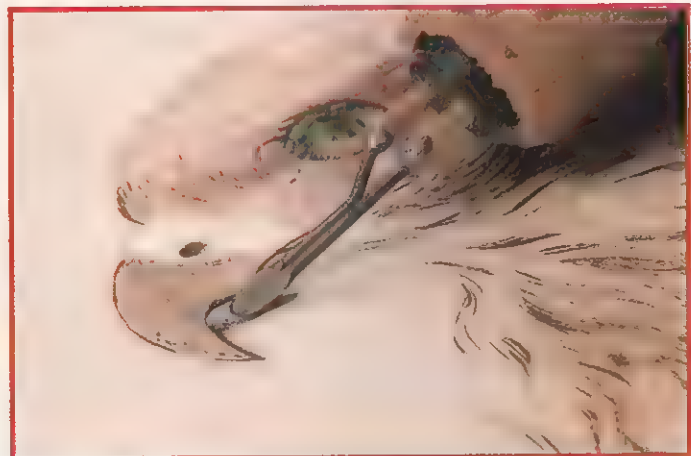
The shading is a matter of three things: temperature, closeness of the lines to each other, and the speed at which you move your tip. No matter what temperature setting you're working at, you're going to get a lighter shade when you move the pen quickly and a more even color if you slow your hand down a bit. The slower you go, the darker the burn will be.



This is my tip position for the feathers; it is what you could call a "writing position."



Here I am going back over the beak to add more depth and contrast. Notice that I'm "shading" using the "J" tip laid on its side this time. That is because the beak is a smooth, hard surface. For feathers, I'd shade with the pen held upright as in the previous photo.

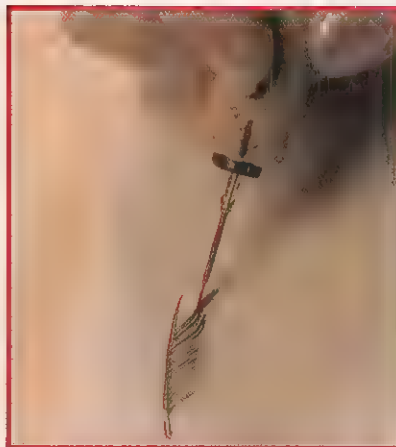


By lowering the tip, I get a more darkened surface and greater contrast. Don't forget, we are going to be adding color, so don't burn too dark.

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The first step in learning to burn beautiful feathers is to actually look at a real feather. Notice how the quill tapers from thick, where it joins the bird, and gets thinner and thinner until it disappears at the tip of the feather. Look at the angle at which the barbs grow out of the quill, usually about 45°. Then see how the feather forms a paper-thin arch as it conforms to the curvature of the bird's body. Again, there are no straight lines on the feathers I burn, and that is what makes them look so soft. (One small note: Every part of the bird's body has a different type of feather, so you are not going to get away with studying just one feather!)



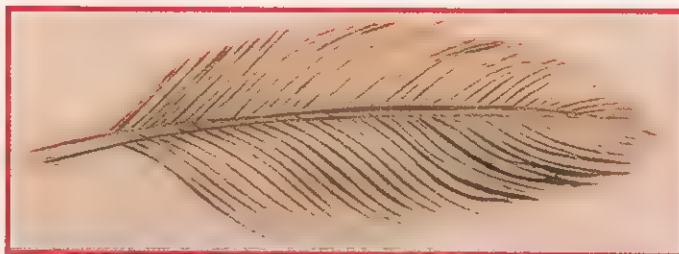
I roll the pen, pressing down with my thumb as I pull and lift off to curve to the right. (If you have studied calligraphy, you will understand just what I am doing.)



We do the same thing for the opposite side. Roll in the opposite direction by pressing down with the index finger and pulling towards you.



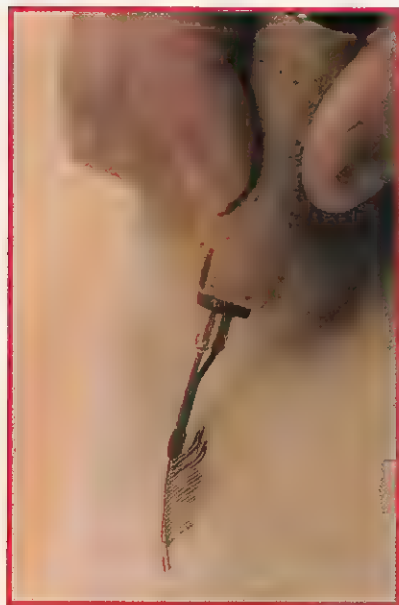
As you can see from the position of the pen, making the curved quill lines requires little effort, and once you get the hang of it, you can move along at a good pace.



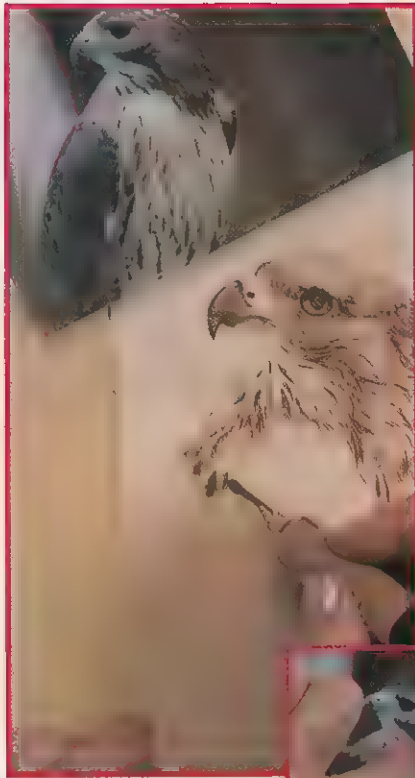
Just to prove a point, I burned some straight barbs on the top left of the feather using the same tip, angle, heat setting, and spacing. Doesn't look nearly as soft, does it? That is why it's important to use curved lines. (The unevenness of the burned barbs is because Wes and I tried to get the best detail on film for the examples shown here, but it also points out just what happens if you slow down or hold position too long.)



By this time, we have made enough test burns on the scrap wood to see just what temperature settings we need. Still using the trusty "J" handpiece, outline the quill, and start the barbs. My hand is in a normal writing position throughout the motion in each barb.



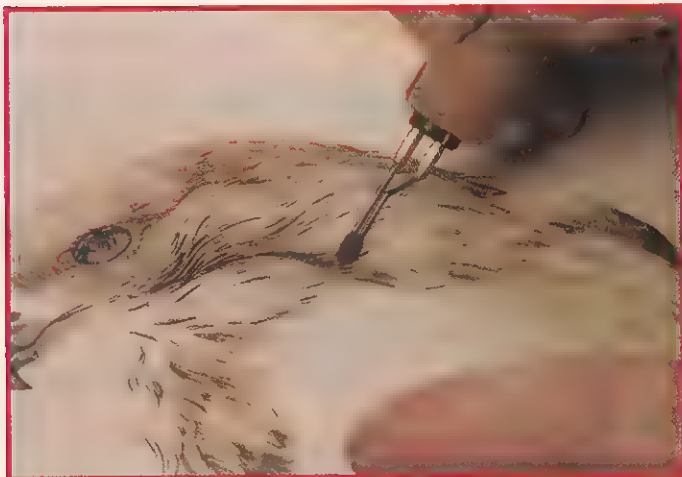
The quill and barbs are burned heavier at the base, then taper off, and they have a bit of a curve to them. See—no straight lines! The easiest way to make the line curve is to roll the handpiece in your fingers as you pull towards yourself. Notice the position of the red mark on the pen.



Now that all of the main outline is done, we will go back over it and burn in some depth and shading. This is the transition area from the neck to the wing, and we will add a few dark shoulder feathers.



Next, we will add more shading. This is where the photograph is particularly important, because now, the bird will start to come to life.



All of these small details make the bird become an actual likeness of the hawk, rather than a collection of burned lines on wood



Seal the wood with a clear acrylic sealer, such as Delta Ceramcoat All Purpose Sealer, and let it dry.



Finished
(uncolored) burn

You can actually stop here and have a work of art that is sure to impress anyone. But, if you wish to add color, continue with the following steps.

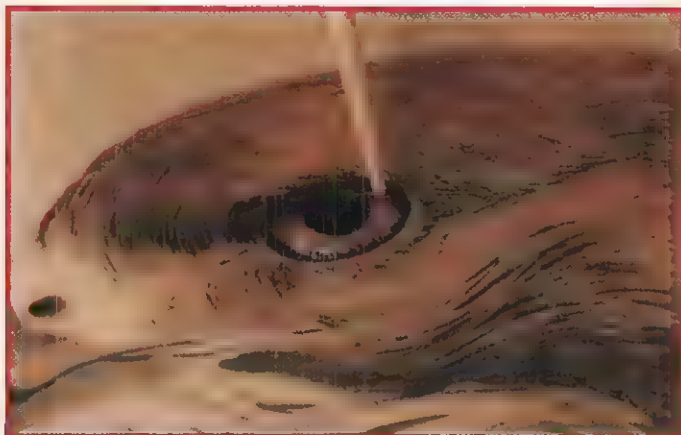


I use burnt sienna for the base color, let it dry a bit, and then wash over it with burnt umber to darken it. I use a brush to apply both colors.

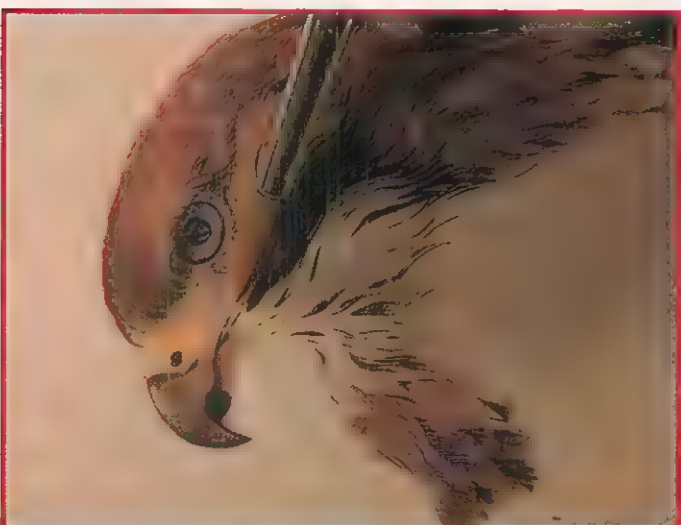
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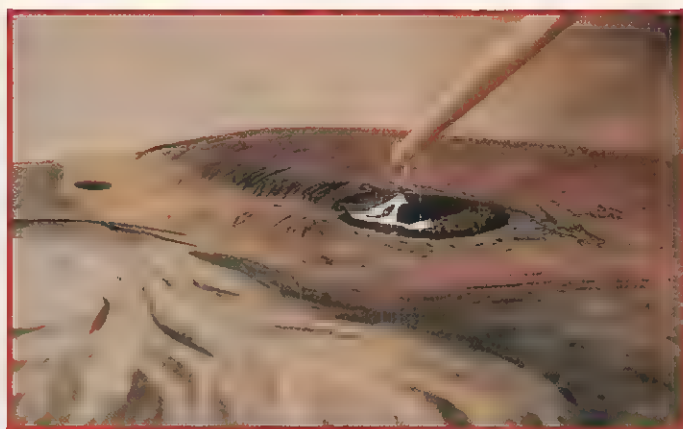
Now we make lifelike eyes. Using a very small sable brush and Liquitex iridescent copper acrylic (or metallic copper nail polish), fill in the iris. Don't put it on too heavy because we want the burnt lines to show through.



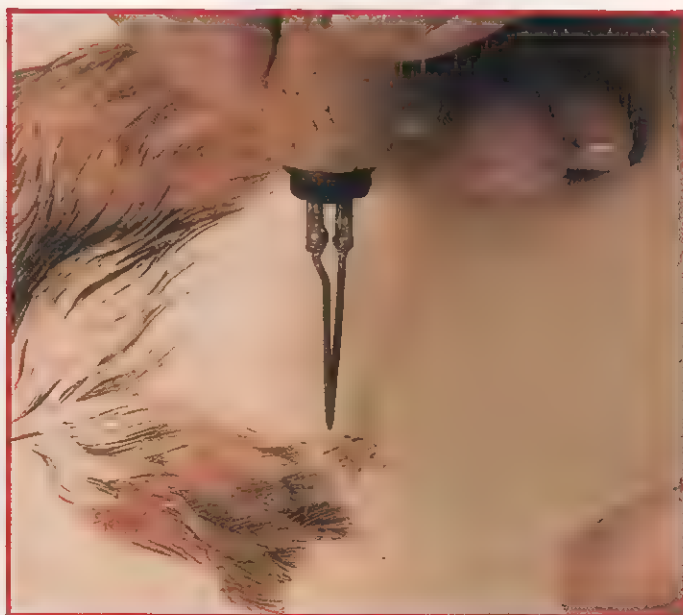
Use a toothpick to add some fine glitter. (Wet & Wild nail polish works just fine.) You will only need a few specks, so don't overdo it.



While the eye is drying, add Naples yellow or a medium cadmium yellow paint to the base of the beak.



Once the eye has cured, finish it by glazing it with Treasure Crystal Cote (as described in the April, 2005 issue in great detail). If it takes two coats, be sure to let the first coat dry completely before applying the second one. If you use too much, just lift it off with a toothpick.



I use the Mini "C" handpiece to sign my work, but use anything that works for you. The Mini "C" can be used for VERY small details.



Here I'm signing my full name on a flat toothpick to impress Wes and Alice! Don't think that you can't make small details with a wood burner. I even did this once on a round toothpick, but only because we didn't have a flat one on hand. Believe me, flat ones are a whole lot easier to write on.



Finished and colored burn



This is another version of a red-tailed hawk that I did on a gourd, so consider surfaces other than wood to provide you with additional challenges, completely different presentations, and a fun change of pace. You might notice that this hawk isn't nearly as detailed. That's because gourds

are harder to burn than basswood, so I usually try to keep my designs strong and simple when burning on them. There will be more about burning gourds in my next article, along with some hints from my upcoming book about burning gourds, woodturnings, and other round objects (most of them bigger than toothpicks)!

We've just reviewed how to woodburn feathers. We talked about woodburning fur in the April issue. What's next? Let's try fish!!!

If you have enjoyed these articles, please let us know, especially if you would like to see a particular subject or technique demonstrated. If you would like to learn more about woodburning, Orchid has written two fine books on the subject. Please see page 63 for additional information.



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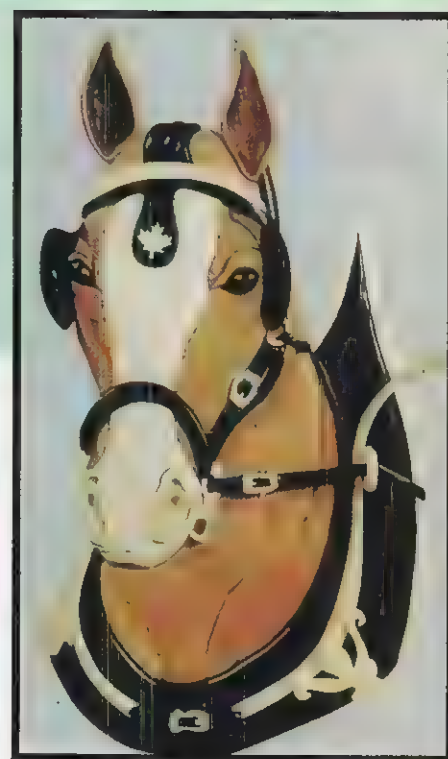
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Reader's Gallery

Frank A. Droege of Voorhees, NJ won first prize in the New Jersey Art Show with this "Chip Monks" project, which he describes as "painted intarsia." With his considerable talent, it is not surprising to learn that Frank has written four scroll saw books, one co-authored with Pat Spielman and three for Fox Chapel. Frank, we are honored to show your work!

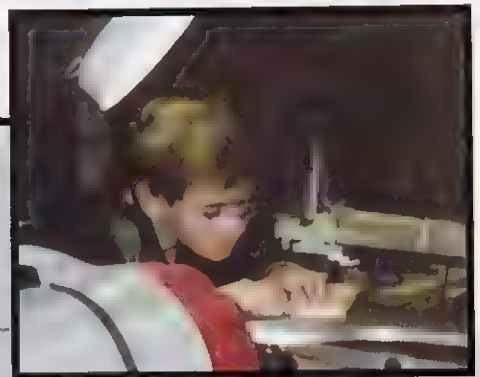


Barry Brookes of Barrie, Ontario, Canada has been doing intarsia for over ten years, and he loves to make his own patterns based upon photographs given to him by people wanting a commissioned piece. Barry favors the use of natural woods and lets "the wood character do the talking about each piece." The Indian War Bonnet is approximately 30" x 14", and it includes 225 pieces and 12 distinct wood species. It won first prize at The Calgary Stampede in 2001. The Clydesdale Horse is approximately 22" x 13" and includes 56 pieces. The horse's harness was painted glossy black to depict the look of patent leather. Barry, your talent is huge!



Warren Flanders of Derry, NH considered Jeff Zaffino's "Family Time" (pictured here) a real challenge. Obviously Warren was up to the challenge! He cut the project from 1/8" Baltic birch plywood, backed it with black velvet, and framed it with pine. An avid reader of this publication, Warren has been scroll sawing for over twelve years. Thanks for sharing, Warren!

Reader's Gallery



Larry Carlson, aka "The Oleguy," is very proud of his 13-year-old **Great-Grandson Chris**, who Larry has "taken under my wing and introduced to the world of scroll art." Larry says his great-grandson has "taken to the art of scrolling with much enthusiasm, patience, and imagination." The Dragon Clock pictured is Chris' own pattern and, of course, he cut it himself. Chris, your great-grandpa is right to be so proud of you!

continued on page 72

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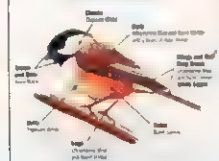
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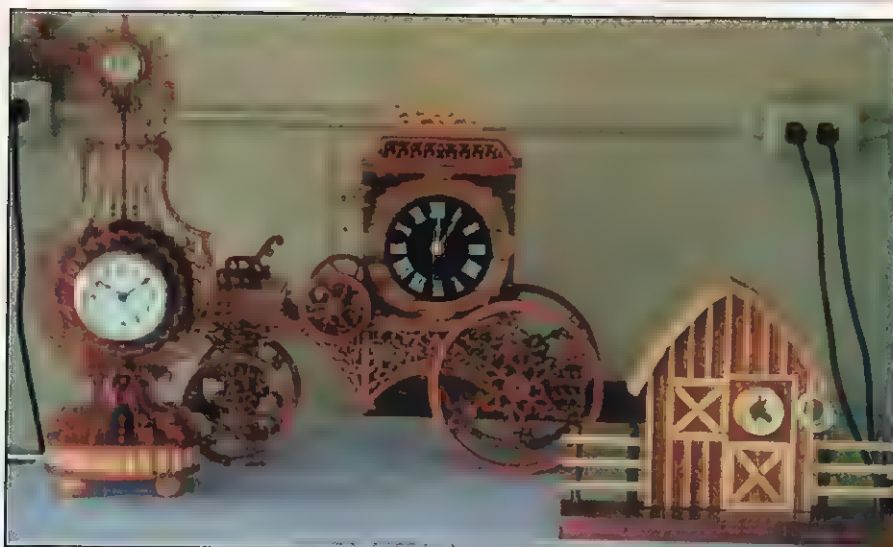
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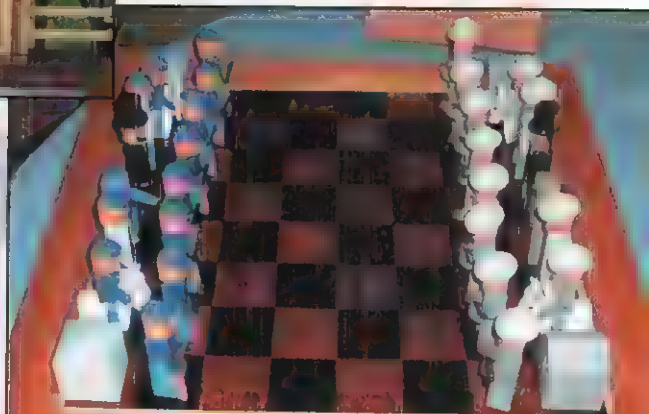
Reader's Gallery

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Lew Arthur of Las Vegas, NV has been scrolling for over seven years. The three projects shown (from left to right) are: The French Lyre Clock, designed by John Nelson and featured in our August, 2000 issue; Wildwood Designs' Old Fire Engine; and Dirk Boelman's Barn Clock, which was featured in our August, 2004 issue. Impressive work, Lew!

Bill McClernan did a nice job making this chess board and Civil War Chess Set, designed by Ralph Sinnott and featured in our August, 2003 issue. Thanks for sharing, Bill!



Jim DesBlens of Fairfield Glade, TN modified this church pattern from Wildwood Designs so that it could be used as a card holder at his daughter Debbie's wedding. A slot was added to the top for cards to be inserted, and the addition of a back door allowed for removal of the cards. Also added were the bride and groom figures and a light. It is no surprise that their Church Card Holder was "a big hit at the wedding and a wonderful keepsake for our daughter, Debbie, and her new husband, Anthony." Jim, what a wonderful application of your woodworking talents!



Bobby Underwood of Smithfield, NC has been scrolling for about eight years, focusing on intars. For about the past two or three years. The dog intars pictured here is Bobby's first original design, adapted from a sketch he did as a fourteen-year-old boy. Nice work, Bobby, and thank you for sharing!

ATTENTION READERS:

We invite you to send us photos of your work, whether original or not, to be included in our Reader's Gallery feature. If it is not of your own design, please tell us whose design it is and, if possible, add a few sentences about the piece(s) being shown. Good, clear, flat photos (or slides) are desirable. Please do NOT send the item itself. Send to *Creative Woodworks & Crafts*, 7 Waterloo Road, Stanhope, NJ 07874, Attn: Robert Becker. Digital photographs are also acceptable with a resolution of 300 dpi, at approximately 3" x 4"; preferably in jpeg or tiff format. They may be emailed to editors@woodworksandcrafts.com.

News Release

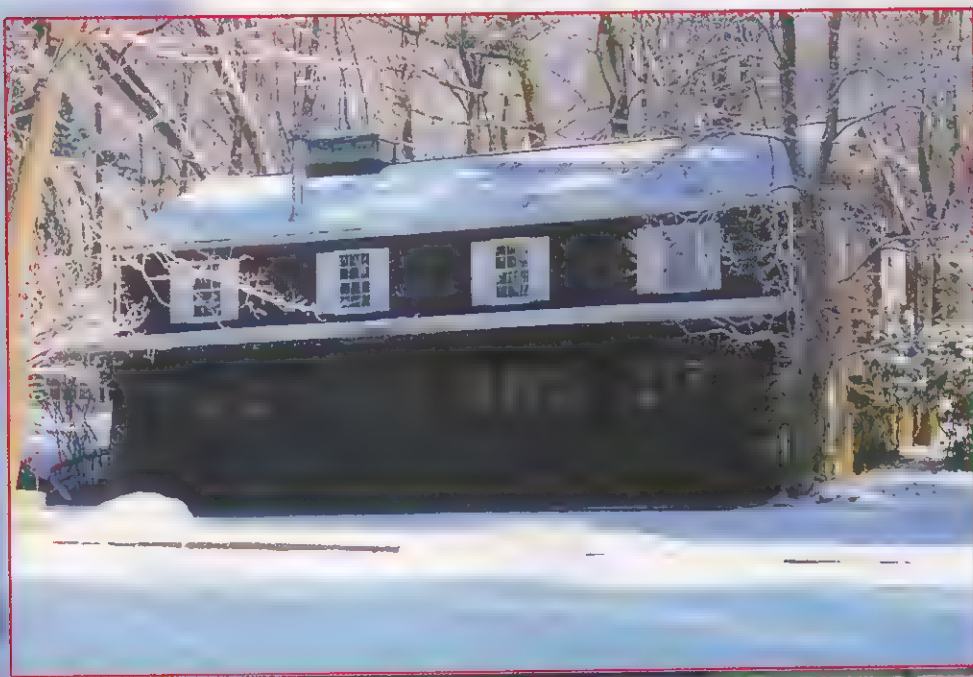
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Peapack, New Jersey-April, 2005. Steebar Corp. the catalog and online retailer of Andover, New Jersey announces that it has expanded its operations, moved to a new headquarters location in Peapack, N. J. and changed its name to www.steebar.com, LLC.

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Steebar's New Home



7



Pocket Watches

by Kathy and Scott Griffith



Introduction

Scott and I would like to thank everyone for all the letters, e-mails, and phone calls we've received in response to our mini-lathe series. It's been wonderful hearing from you, and we are making every effort to answer each inquiry. Remember, we do live in a rural area of southern Lancaster County, PA, where, in order to access our e-mail, we need to take a trip into town to visit our beautiful library! Because of this, and frequent power outages, some things from time to time may get lost. If we fail to answer a question, please contact us again.

A pleasant and unexpected outcome of this series has been the visits from a number of folks who have stopped by our displays at woodcarving and art shows and at the Pennsylvania Renaissance Fair in Swashbucklers Grove. All this response has fueled our continuing effort to share the rewards of creativity, especially with children. Special congratulations are sent out to all the Scout troop leaders, students, teachers, and parents who have been sharing this hobby and are using their skills to reach out to others.

Scott and I have been part of each other's lives for almost 30 years and have learned the importance of positive support, humor, respect, and creative freedom. We hope to continue hearing from all of you because that is what inspires us to reach higher. Keep up the good work and, most of all, keep smiling—it is the best advertisement for an activity that makes you happy!

Getting started

The pocket watch kit allows a turner to create a handsome and unique gift item. The variety of clock face styles available and all the species of wood on the market could result in a plethora of one-of-a-kind pocket watches. The outer wooden rim of the watch provides an area for some decorative turning, if you desire. And we are sure some of you could design some creative stands for displaying the completed watches.

When preparing for this project, be sure to order both the chain and the stud, as well as a 36mm-Dia. clock insert. If you choose, substitute a petite stud and gold ring for the heavy duty stud and chain and make a pendant watch. A French-twist rope chain is also available for the pendant watch variation.

If you opt to make the pocket watch using a 2"-Dia. clock insert, your wood blank will need to measure at least 1/2" thick (preferably 5/8" thick) and 2-5/8" square. The 36mm-Dia. clock insert used in this demonstration requires a blank that measures at least 1/2" thick and 2-1/4" square. Our model was made from Staburlized™ box elder burl.

Turning a pocket watch



Mark 2-1/8"-Dia. circle on blank.

Cut the wood for the 36mm-Dia. clock insert pocket watch to a 1-1/4" square. Find and mark the center point. With a compass anchored on the center mark, draw a 2-1/8"-Dia. circle on the blank.



Drill center hole in blank using 1-3/8" forstner bit in drill press.



Using scroll saw to cut away excess wood from marked and drilled blank.

Use a bandsaw or scroll saw to cut away the wood outside the 2-1/8"-Dia. circle drawn on the blank. This step helps make the turning process safer by removing the corners of the block, which otherwise could catch and grab the gouge.



Mounted blank in lathe with tail stock and scrap wood.

Mount the prepared blank on the 1-3/8" expanding collet chuck and fasten it securely. Bring the tail stock to the blank and place a small wood scrap between the blank and the tail stock. Snug the tail stock against the wood scrap and lock it in place. This extra step is a safety precaution, primarily for the roughing process. The 2-1/8"-Dia. circle is a larger diameter than normally used by pen turners, so a bit of caution is advised. The scrap wood prevents the tail stock from dimpling the blank.



With lathe on low speed, begin to rough out, being sure tool rest is properly positioned.

Position the tool rest. Check that it is properly placed by manually rotating the blank, ensuring that the blank does not strike the tool rest. Make sure that your rough out gouge is sharp. Turn the lathe on to its lowest speed and begin turning. Whenever you stop the lathe to check your progress, also check that the blank has not loosened up on the chuck. Begin to round the edges of the blank. Be careful that you do not hit the tail stock with the gouge, as it will damage the cutting edge of the tool. As the blank rounds up, advance the speed of the lathe and smooth the tool marks.

continued on page 76



Use the skew gouge for final shaping and contouring.

Switch to the skew gouge for the final shaping and contouring. Slowly increase the lathe speed while using less and less pressure against the blank. Once the shape is satisfactory and the tool marks are uniform across the surface, loosen and slide back the tail stock and remove the scrap piece of wood.



Start sanding using 150-grit cloth-backed sandpaper and the lathe on low speed.

It is time to sand. Check that the blank is secure on the chuck, and turn the lathe to low speed. Starting with a 1" x 5" strip of 150-grit cloth-backed sandpaper, begin smoothing the blank, including the area where the tail stock had been. Increase lathe speed as you progress through finer grits of sandpaper, all the way through 400 grit. As you increase lathe speed, lessen your pressure against the sandpaper, and the surface markings should soften in appearance. Frequently turn off the lathe to check your progress, looking for areas still in need of work on the surface of the blank.



Use Abralon sanding pads for finish sanding.

For finish sanding, use Abralon sanding pads. With the lathe at high speed and using gentle finger pressure against the pad, start with the 500-grit pad and progress through the 1000-, 2000-, and 4000-grit pads.



Apply Shellawax cream finish and buff.

Apply Shellawax cream finish and buff. Repeat this process several times to maximize the depth of the finish.



Secure cloth-wrapped blank in drilling center vise and drill 3/16"-deep hole with 9/64" bit mounted in drill press.

Read the assembly directions thoroughly before proceeding. Remove the blank from the chuck. Determine where the stud is to be mounted and where the hole for the stud should be drilled. Wrap the blank in a clean cloth to protect it; then secure it in the drilling center vise. Mount a 9/64" drill bit in the drill press and position the vise, holding it securely in place as you lower the drill bit and drill a 3/16"-deep hole.



Leaving the blank in vise, screw the stud in place using a finish nail.

Leaving the blank in the vise, screw the stud in place using a finish nail. Position it so the hole in the stud follows the circumference of the watch blank.

Set the clock to the correct time. (The clock insert does not get glued in place because it must be removable to facilitate changing the battery.) After the epoxy is set, attach the watch chain and insert the clock, being sure to line up the 12 o'clock and 6 o'clock numbers with the stud.



Completed pocket watch.

Enjoy the one-of-a-kind time piece you have just created!

For questions concerning this article, send a SASE to: Kathy and Scott Griffith, 672 Conowingo Rd., Quarryville, PA 17566; Email: griffduchess@yahoo.com



A gallery of pocket watches (front)



A gallery of pocket watches (back)

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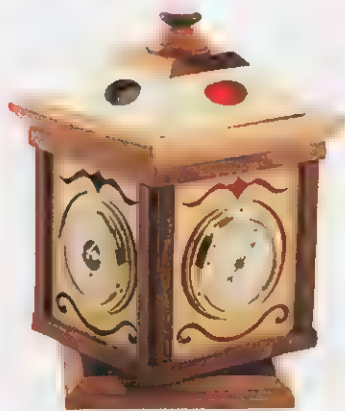
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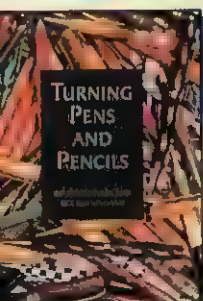
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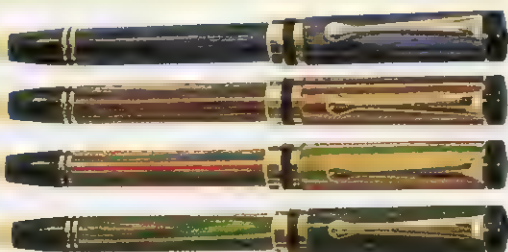
Introduction To Scroll Sawing

by Wes Demarest



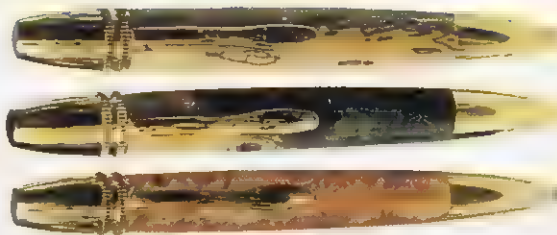
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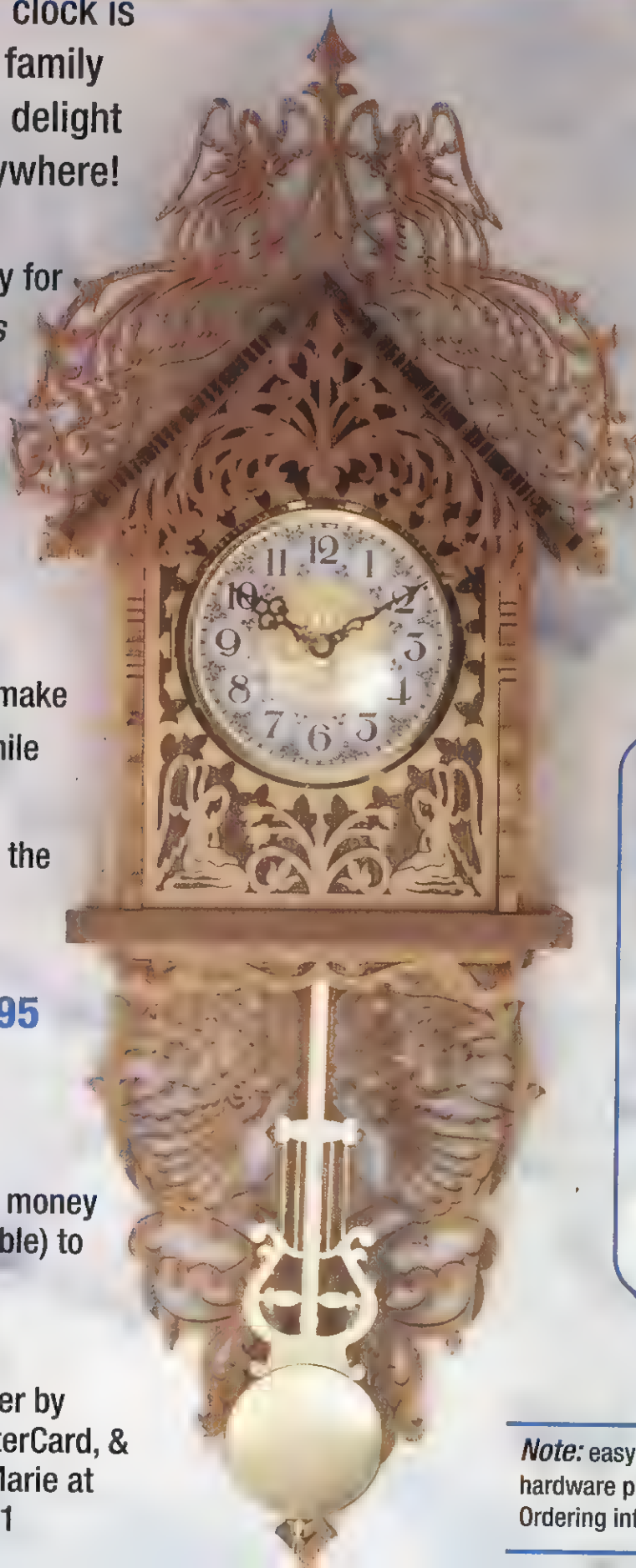
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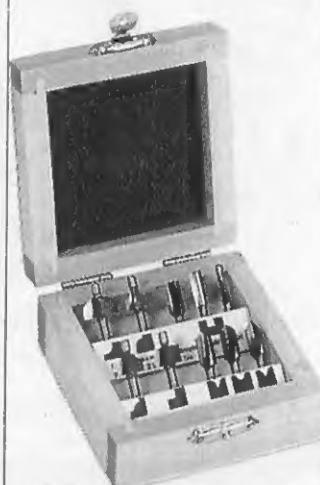
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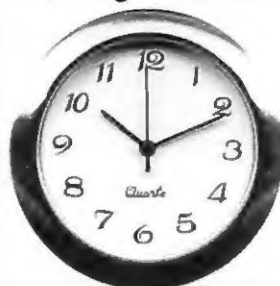
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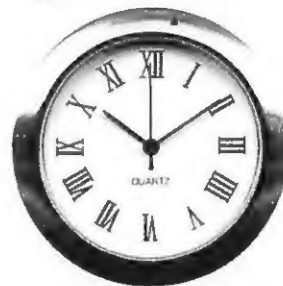
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